Stallings Technical Standards & Specifications Manual

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Table of Contents

Specifications & Special Provisions:

Standard Details:

1000 Series – Miscellaneous Infrastructure Standards

Standard	Description
10.01	Residential Street Section
10.02	Street Section with Utilities, 60’ Right-of-Way
10.03	Residential Collector Street Section
10.04	Standard Alley Section
10.05	Extra Width Alley Section
10.06	Divided Heavy Duty Commercial Boulevard Street Section
10.07	Major Collector & Industrial Street
10.08	Industrial Street (Ditch Type)
10.09	Main Street, Urban Street Section
10.10	Urban/Neighborhood Street Section with Storm BMP
10.13	Minor Collector Cul-De-Sac
10.14	Residential Cul-De-Sac
10.17A	Standard Curb and Gutter
10.17B	Curb and Gutter
10.18	18” Vertical Curb
10.19	Curb Transition 2’-6” to 2’-0” Valley
10.20	Curb Transition 2’-6” to 1’-6” Standard
10.22	Concrete Sidewalks
10.23	Monolithic Concrete Curb and Sidewalk
10.24A	Commercial Type II and Residential Drop Curb Type I Driveway with Sidewalk Abutting Curb (2’-6” Curb and Gutter)
10.24B	Commercial Type II and Residential Drop Curb Type I Driveway with Sidewalk Abutting Curb (6”x18” Vertical Curb)
10.24C	Commercial and Residential Drop Curb Driveway with Sidewalk Abutting Curb
10.25A	Residential Drop Curb Type I Driveway with Planting Strip (2’-6” Curb and Gutter)
10.25B	Commercial Drop Curb Type II Driveway with Planting Strip (2’-6” Curb and Gutter)
10.25C	Residential Drop Type I Driveway with Planting Strip (6”x18” Vertical Curb)
10.25D	Commercial Drop Curb Type II Driveway with Planting Strip (6”x18” Vertical Curb)
10.25E	Modified Type II Driveway Detail with Planting Strip
10.25F	Commercial Type IV Driveway Standard
10.26	Drop Curb Driveway – Monolithic Curb and Sidewalk
10.27A	Residential Driveway (Type I) Valley Gutter
10.27B	Commercial Type II Driveway For 2’-0” Valley Gutter
10.28	Type III Driveway Entrance
10.29	Catch Basin Frame in Valley Gutter
10.30	Catch Basin Placement in Valley Gutter
10.31A	Accessible Ramp Standard with Planting Strip 2’-6” Curb and Gutter
10.31B	Accessible Ramp Section with Planting Strip 2’-6” Curb and Gutter
10.32A	Accessible Ramp Standard without Planting Strip 2’-6” Curb and Gutter
10.32B	Accessible Ramp Section without Planting Strip 2’-6” Curb and Gutter
10.33A	Accessible Ramp Standard 2’-0” Valley Gutter
10.33B	Accessible Ramp Section 2’-0” Valley Gutter
10.34A	Accessible Ramp Standard Monolithic Curb and Sidewalk
10.34B	Accessible Ramp Sections Monolithic Curb and Sidewalk
10.35A	Standard Placement of Accessible Ramps and General Notes
10.35B	Truncated Domes Plan and Cross Section
10.36A	Culvert Crossings on Residential and Commercial Streets
10.36B	Culvert Crossings on Residential and Commercial Streets
10.37	Typical Local Residential To Local Limited Street Taper
10.40A	Directional Accessible Ramp with Small/Medium Curb Radii
10.40B	Directional Accessible Ramp with Large Curb Radius

2000 Series - Storm Drain Standards

Standard	Description
20.00A,B,C	NCDOT Standards Approved For Use in the Town of Stallings
20.03	Double Brick Catch Basin 15”-36” Pipe
20.05A	Slab Type Catch Basin 15” Thru 48” Pipe
20.05B	Manhole Ring and Cover for Slab Type Catch Basin
20.17A	Concrete Wingwall Splash Pad
20.22	Flared End Section 12” To 72”
20.23	Rip Rap Aprons at Outfalls
20.24	Rip Rap Plunge Pool
20.25	Trench Detail for Storm Drain
20.26	Concrete Paved Ditches
20.27	Rip Rap Ditches
20.28	Subdrain Detail
20.29	Overlapping Sewer and Storm Easements
20.30	Minimum Storm Easements Pipe and Channel
20.34	Offset Catch Basin
20.35	Grading At Drop Inlet

2100 Series – Stormwater BMP Details

Standard	Description
21.00	Bioretention Plan
21.01	Bioretention Cross-Section
21.02	Bioretention Planting Plan
21.04	Flow Splitter Structure
21.04A	Alternate Flow Splitter Structure
21.04B	Alternate Flow Splitter Structure
21.05	Wetpond Plan
21.06	Wetpond Profile
21.07	Wetpond Cross-Sections
21.08	Wetpond Littoral Shelf and Berm Detail
21.09	Wetpond Planting Plan
21.10	Wetland Plan
21.11	Wetland Profile
21.12	Wetland Cross-Sections
21.13	Wetland Details
21.14	Wetland Planting Plan
21.15	Enhanced Grass Swale Planting Plan
21.16	Enhanced Grass Swale Details
21.17	Grass Channel
21.18	Grass Channel Planting Plan
21.19	Infiltration Trench
21.20	Observation Well Detail
21.21	Buffer Strip
21.22	Buffer Strip Planting Plan
21.23	Underground Sand Filter

3000 Series - Erosion Control Standards

Standard	Description
30.00	Special Erosion Control Requirements & Notes
30.01	Temporary Sediment Trap
30.02A	Skimmer Sediment Basin
30.02B	Skimmer
30.03A	Sediment Basin
30.03B	General Notes – Sediment Basins
30.04	Flexible Pipe Slope Drain
30.05	Temporary Silt Ditch
30.06A	Temporary Silt Fence
30.06B	High Hazard Temporary Silt Fence
30.07	Block and Gravel Stone Inlet Protection
30.08	Stone Inlet Protection
30.09	Hardware Cloth and Gravel Inlet Protection
30.10	Temporary Rock Check Dam
30.11A	Stabilized Construction Entrance
30.11B	Construction Entrance Tire Wash
30.12	Gravel and Rip Rap Filter Berm Basin
30.13	Erosion Control Dewatering
30.14	Temporary Stream Crossing
30.15	Catch Basin Inlet Protection
30.16	Slope Stability
30.17	Temporary Seeding Schedule
30.18	Construction within Creek Bank
30.19	Baffle Installation
30.20	Embankment Matting Detail
30.21	Brick Storm Structure with Temporary Pipe

4000 Series - Tree Standards

Standard	Description
40.01	Tree Planting Detail
40.02	Tree Protection Detail Large and Small Maturing Tree Pit with Grate in Sidewalk (Plan)
40.03A	Large and Small Maturing Tree Pit with Grate in Sidewalk (Section)
40.03B	Large and Small Maturing Tree Pit with Grate in Sidewalk (Section)
40.03C	Large and Small Maturing Tree Pit with Grate in Sidewalk (Section)
40.04	Typical Valve and Valve Box Installation
40.05A	Shrub Planting Bed
40.05B	Individual Small Shrub / Tree Planting
40.08A	Median Greater than 120 Inches Excavation, Drainage and Backfill
40.08B	73 to 120 Inch Median Excavation, Drainage and Backfill
40.08C	48 to 72 Inch Median Excavation, Drainage and Backfill
40.09	Root Flare Depths
40.10	Tree Planting Notes
40.11	Bridging Tree Roots
40.12	Temporary Tree Protection Detail
40.13	Asphalt Curb Placement at Existing Trees
40.14	Rock Chimney

5000 Series - Miscellaneous Standards

Standard	Description
50.03	Concrete Control Monument
50.04A	Typical Handrail
50.04B	Handrail Warrants
50.05A	Street Name Sign
50.05B	Street Name Sign
50.06	Street Name Sign Installation Locations
50.07A	Dead End Street Barricade
50.07B	Dead End Street Barricade General Notes
50.08A	End of Roadway Marker
50.08B	End of Roadway Marker Guard Rail Clamp Installation
50.08C	Street Connectivity Sign for End-of-Road Barricade
50.09A	Parking Standards
50.09B	Parking Standards (Continued)
50.09C	Parallel Parking Standards
50.10A	Accessible Parking and Signage Standards
50.10B	Supplemental Van Accessible Sign (R7-8P)
50.10C	Supplemental Accessible Sign
50.11	Signage and Pavement Markings at Roundabouts
50.13	Directional Crossover with Raised Medians
50.14	Piano Style Crosswalk
50.20	Inverted U Rack Bicycle Parking
50.21	Wave Rack for Bicycle Parking

STALLINGS LAND DEVELOPMENT STANDARDS
SPECIFICATIONS AND SPECIAL PROVISION NOTES

The following specifications and special provisions are intended to be used in conjunction with the Town of Stallings (TOS) Land Development Standard Drawings, NCDOT Roadway Standard Drawings, and NCDOT Standard Specifications for Roads and Structures for all development within the Town of Stallings unless otherwise directed by the Town Engineer.

I. STREETS

A. GENERAL NOTES

1. All work and materials shall conform to the latest edition of the North Carolina Department of Transportation Standard Specifications for Roads and Structures unless otherwise specified in this manual.

2. All asphalt cuts shall be made with a saw when preparing street surfaces for patching or widening strips.

3. Paper joints shall be used to seal the ends of an asphalt pour so that future extensions can be made without causing rough joints.

4. When placing asphalt against existing surfaces, a straight edge shall be used to prevent “humping” at that location.

5. Stone shall be primed if paving is not complete within seven days following stone base approval.

6. Surfaces shall be tacked when asphalt is being placed over existing asphalt streets or adjoining concrete, storm drain and sanitary sewer structures.

7. In rolling and hilly terrains, sweeping of the stone base and/or application of a tack coat may be required near intersections. These requirements will be established by the Town Inspector based on field conditions.

8. ALL concrete used for streets, curb and gutter, sidewalks and drainage structures, etc. shall have a minimum compressive strength of 3600 PSI at 28 days. This requirement shall be provided regardless of any lesser compressive strength specified in the North Carolina Department of Transportation Standard Specifications for Roads and Structures. The contractor shall prepare concrete test cylinders in accordance with Section 1000 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures at the direction of the project inspector. All equipment and cylinder molds shall be furnished by the contractor. It shall be the responsibility of the contractor to protect the cylinders until such time as they are transported for testing. Testing for projects shall be performed by an independent testing lab, at no cost to the Town. The contractor shall provide equipment and perform tests on concrete for a maximum slump and air content as defined in Section 1000 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures. These tests shall be performed at a frequency established by the inspector. Materials failing to meet specifications shall be removed by the contractor.

9. All concrete shall be cured with 100% Resin Base, white pigmented curing compound which meets ASTM Specifications C- 309, Type 1, applied at a uniform rate at one (1) gallon to 400 square feet within 24 hours of placement of the concrete.

10. All curb and gutter shall be backfilled with soil approved by the Inspector within 48 hours after construction to prevent erosion.

11. All backfill shall be non-plastic in nature, free from roots, vegetative matter, waste, construction material or other objectionable material. Said material shall be capable of being compacted by mechanical means and the material shall have no tendency to flow or behave in a plastic manner under the tamping blows or proof rolling.

12. Materials deemed by the Inspector as unsuitable for backfill purposes shall be removed and replaced with select backfill material.

13. All trenches in the street right-of-way shall be backfilled with suitable material immediately after the pipe is laid. The fill around all pipe shall be placed in layers not to exceed six (6) inches and each layer shall be compacted thoroughly.

14. Under no circumstances shall water be permitted to rise in un-backfilled trenches after the pipe has been placed.

15. Compaction requirements shall be attained by the use of mechanical compaction methods. Each six (6) inch layer of backfill shall be placed loose and thoroughly compacted into place.

16. Straight forms shall not be used for forming curb and gutter in curves.

17. All excess concrete on the front edge (lip) of gutter shall be removed when curb and gutter is poured with a machine.

18. All subgrade shall be compacted to 100% of the maximum density obtainable with the Standard Proctor Test to a depth of eight (8) inches, and a density of 95% Standard Proctor for depths greater than eight (8) inches. All tests shall be performed by developer at no cost to the Town.

19. A canvas cover or other suitable cover shall be required for transporting plant mix asphalt during cool weather when the following conditions are present:

    a. Air temperature is below 60 degrees F.
    b. Length of haul from plant to job is greater than five (5) miles.
    c. Other occasions at the Inspector's discretion when a combination of factors indicates that material should be covered in order to assure proper placement temperature.

20. Concrete or asphalt shall not be placed until the air temperature measured at the location of the paving operation is at 35 degrees F and rising by 10:00 a.m. Concrete or paving operations should be suspended when the air temperature is 40 degrees F and descending. The contractor shall protect freshly placed concrete or asphalt in accordance with Sections 420 (Concrete Structures), 600 (Asphalt Bases And Pavements), and 700 (Concrete Pavements And Shoulders) of the North Carolina Department of Transportation Standard Specifications when the air temperature is at or below 35 degrees F and the concrete has not obtained an age of 72 hours.

21. The contractor shall maintain two-way traffic at all times when working within existing streets. The contractor shall place and maintain signs, danger lights, and barricades and furnish watchmen or flagmen to direct traffic in accordance with the latest edition Work Area Traffic Control Handbook (WATCH). Work in the right-of-way of State System Streets may require additional traffic control provisions.

22. The contractor shall do that which is necessary to control erosion and prevent sedimentation damage to all adjacent properties and streams in accordance with the appropriate NCDENR Erosion and Sedimentation Erosion Control Ordinance.

B. STANDARDS OF STREET DESIGN

1. Minimum street right-of-way widths shall not be less than the following:

Street Type	Right-of-Way Width
Major Thoroughfare	120 feet
Residential Collector	96 feet
Minor Thoroughfare	80 feet
Main Street	75 feet
Major Collector/Industrial	70 feet
Residential	60 feet
Commercial	70 feet

2. Minimum Design Criteria for Local Residential Streets:

Terrain Classification: Terrain classification falls under two categories: 1) Level – natural slope range of 0% to 8% and 2) Rolling – natural slope range of 8.1% to 15%.

		LEVEL	ROLLING
Pavement Width Curb and Gutter Section		*22' EP-EP	*22' EP-EP
Maximum Cut and Fill Slopes		2:1	2:1
Design Speed		30 mph	25 mph
Min. Sight Distance and Vertical Curves		200'	150'
Minimum Centerline Radius		230'	150'
Maximum Grade*		9%	12%
K=Rate of Vertical Curvature for Minimum Sight Distance**	Crest	30	20
	SAG	30	20
	STOP	14	9
Minimum Cul-de-Sac Radius Right of Way	Curb and Gutter Section	45'	45'
Minimum Cul-de-Sac Radius	Curb and Gutter Section	36' to EP	36' to EP

*Grades for 100' each way from intersection exceeding 5% may be reviewed by Town Engineer for consideration. Grades less than 0.5% should not be used unless reviewed individually by the Town Engineer to determine potential maintenance problems.

**Formula for determination of length of vertical curve required to provide minimum site distance: [L=KA] L = length of vertical curve in feet; K = Rate of vertical curvature in feet per percent of A; A = Algebraic difference in grades in percent.

3. Minimum Design Criteria for Residential Collector Streets

Terrain Classification: Terrain classification falls under two categories 1) Level – natural slope range of 0% to 8% and 2) Rolling – natural slope range of 8.1% to 15%.

		LEVEL	ROLLING
Right of Way Width Curb and Gutter Section		60’	60’
Maximum Cut and Fill Slopes		2:1	2:1
Design Speed		35 mph	30 mph
Minimum Sight Distance and Vertical Curves		250’	200’
Minimum Centerline Radius		310’	230’
Maximum Grade*		6%	9%
K=Rate of Vertical Curvature for Minimum Sight Distance**	Crest	45	30
	SAG	45	30
	STOP	20	14

*Grades for 100’ each way from intersection exceeding 5% may be reviewed by Town Engineer for consideration. Grades less than 0.5% should not be used unless reviewed individually by the Town engineer to determine potential maintenance problems.

**Formula for determination of length of vertical curve required to provide minimum site distance: [L=KA] L = length of vertical curve in feet; K = Rate of vertical curvature in feet per percent of A; A = Algebraic difference in grades in percent.

4. Pavement widths shall be in accordance with the standards of the NCDOT for the street type of the Town of Stallings whichever is more restrictive.

5. Proposed streets shall conform to grade standards adopted by the NC Department of Transportation for public streets of the Town of Stallings whichever is more restrictive.

6. All vertical curves shall have a length as necessary to provide safe sight distance.

7. a. Streets shall be laid out so as to intersect as nearly as possible at right angles, and no street shall intersect any other street at an angle less than 75 degrees.

b. Property lines at street intersections shall be round with a minimum radius of 20 feet. At an angle of intersection of less than 75 degrees, a greater radius may be required. Where a street intersects an NCDOT maintenance right of way, the design standards of the NCDOT, Division of Highways shall apply.

c. Offset intersections are to be avoided unless exception is granted. Intersections which cannot be aligned should be separated by a minimum length of 200 feet between survey center lines.

d. Intersections with major or minor thoroughfares should be at least 1,000 feet apart measured from centerline to centerline.

8. Permanent dead-end streets shall not exceed 500 feet in length, and shall be provided with a turnaround of a diameter meeting NCDOT standards.

9. Block Length and Width

a. Blocks shall not exceed a perimeter length of 5,000 feet, perimeter length being the shortest perimeter measurement along the abutting right-of-way line.

b. Blocks shall be at least wide enough to allow two tiers of lots of minimum depth, except where prevented by topographical conditions or the size of the property. A single tier of lots may be used adjoining a major thoroughfare where access is provided from a minor interior street.

10. Design criteria for arterial streets shall be established jointly by the Town Engineer and the Director of the Department of Transportation on a case by case basis using the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highway and Streets and/or NCDOT Roadway Design Manual.

11. Intersection corner – A minimum 10' x 70' sight triangle (measured along right-of-way lines) shall be provided at each intersection corner. Other sight distance requirements may be required by the NCDOT or the TOS.

12. Refer to the NCDOT Subdivision Roads Minimum Construction Manual for development criteria for sites located within the Town of Stallings Extraterritorial Jurisdiction (ETJ) within these areas governed by TOS Land Development Standards Manual and the NCDOT Subdivision Roads Minimum Construction Standards Manual. The more restrictive standard shall apply.

C. GRADING

1. Proposed street rights-of-way shall be graded to their full width for ditch type streets and a minimum of eight (8) feet behind the curb for curb and gutter sections.

2. Fill embankments shall be formed of suitable material placed in successive layers not to exceed more than six (6) inches in depth for the full width of the cross-section, including the width of the slope area. No stumps, trees, brush, rubbish or other unsuitable materials or substances shall be placed in the embankment. Each successive six (6) inch layer shall be thoroughly compacted by the sheepsfoot tamping roller, 10-ton power roller, pneumatic-tired roller, or other methods approved by the Town Engineer. Embankments over and around all pipe culverts shall be of select material, placed and thoroughly tamped and compacted as directed by the Town Engineer or his representative.

D. ROADWAY BASE

1. All roadways shall be constructed with a base course as described on the appropriate TOS Land Development Standard Detail Drawing.

2. The material for stone base course shall conform to the requirements of Section 1010, Aggregate for Non-Asphalt Flexible Type Base, and Section 520, Aggregate Base course of the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

3. The stone base shall be compacted to 100% of the maximum density obtainable with the Modified Proctor Test (AASHTO- T180) by rolling with ring or tamping roller or with a pneumatic tired roller with a minimum weight of ten tons. When completed, the base course shall be smooth, hard, dense, unyielding and well bonded.

4. A bituminous concrete base course, as specified on the Standard Detail Drawing may be substituted in lieu of a stone base course.

5. Asphalt base course will only be allowed within widening strips less than five (5) feet in width.

E. ROADWAY INTERMEDIATE AND SURFACE COURSE

1. All public roadways shall be constructed with an intermediate and surface course as described on the appropriate Town of Stallings Land Development Standard Detail Drawing.

2. Plant mixed asphalt shall conform in all respects to Section 610 of the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

3. The final lift of asphalt surface course for Residential Subdivision Streets shall be withheld until a minimum of (80%) for local residential and (90%) for residential collector, commercial and industrial roads within an occupied Development (occupied means a certificate of occupancy has been issued). All known base failures shall be repaired prior to application of the final lift of asphalt surface course.

4. The Town inspector shall be given a (24) twenty-four hour notification to inspect the intermediate course deficiencies. All deficiency repairs are to be monitored by a Town Inspector and accepted prior to application of final layer.

5. Recycled plant mixes are not allowed on new roadways.

6. Failure to meet the above requirements may result in the delay or prevention of street acceptance by the Town of Stallings or NCDOT.

F. SIDEWALKS AND DRIVEWAYS

1. Sidewalks shall be constructed of not less than 3600 P.S.I. concrete and shall be four (4) inches thick, constructed on an adequately graded base, except where a sidewalk crosses a driveway it shall be six (6) inches thick. Subgrade shall be compacted to 95% of the maximum density obtainable with the Standard Proctor Test. The surface of the sidewalk shall be steel trowel and light broom finished and cured with an acceptable curing compound. Tooled joints shall be provided at intervals of not less than five (5) feet and expansion joints at intervals of not more than forty-five (45) feet. The sidewalk shall have a lateral slope of one-quarter (1/4) inch per foot.

2. Planting strip adjacent to sidewalk shall be graded to ¼ inch per foot (min.) up to 1 ¼ inch per foot (max.), except where excessive natural grades make this requirement impractical. In such cases, the Town Engineer may authorize a suitable grade.

3. Sidewalk widths shall be a minimum of five (5) feet unless otherwise specified.

4. Approval of sidewalk construction plans must be obtained as part of the plan review process. Except in unusual circumstances, sidewalk must be located a minimum of (6) six feet from the back of the curb or at the back of the right-of-way. A recorded public sidewalk easement is required for all sidewalk located outside public right-of-way; the width shall be equal to the distance from the right-of-way line to the back of the sidewalk plus two feet or to the face of building, whichever is less. The sidewalk easement must be recorded with the Union County Register of Deeds prior to issuance of a certificate of occupancy for the corresponding building(s).

5. Accessible ramps are required where sidewalks intersect curbing at any street intersection and at Type III driveway connections.

II. **STORM DRAINAGE**

A. GENERAL NOTES

1. All work and materials shall conform to the latest edition of the NCDOT Standard Specifications *unless otherwise specified in this manual*. ALL concrete used for drainage structures shall have a minimum compressive strength of 3600 PSI at 28 days. This requirement shall be provided regardless of any lesser compressive strength specified in the North Carolina Department of Transportation Standard Specifications for Roads and Structures.

2. Reinforced concrete pipe may be used in all storm drain applications. Culverts 60 inches in diameter or greater may be Corrugated Aluminized Metal Pipe (CAMP) or aluminum with a minimum 14 gauge metal.

3. All pipe shall be laid with the bell or groove upgrade and the joint entirely interlocking.

4. The minimum cover for all pipes is two (2) feet measured from the final surface. Special applications for less than two (2) feet of cover will be reviewed and approved by the Town Engineer individually. The maximum cover for storm drainage pipes shall at a minimum comply with the requirements of the North Carolina Department of Transportation Highway Design Branch Roadway Design Manual, Part I, Section 5, and "Drainage Design". Storm pipe design that exceeds these criteria may be approved at the discretion of the Town Engineer.

5. All pipes in storm drain structures shall be flush with the inside wall.

6. All storm drain structures over three (3) feet and six (6) inches in height must have steps in accordance with standard details set forth in this manual.

7. The interior surfaces of all storm drainage structures shall be pointed up and smoothed to an acceptable standard using mortar mixed to manufacturer's specifications.
8. All frames, grates, rings, covers, etc., must conform to the standards set forth in this manual.
9. All graded creek banks and slopes shall be at a maximum of two (2) feet horizontal to one (1) foot vertical (2:1) and not to exceed 10' without terracing or the slopes shall be designed by a Professional Geotechnical Engineer and approved by the Town Engineer on a case by case basis.

B. REINFORCED CONCRETE PIPE.

1. All concrete shall be at least 3600 PSI. Prior approval shall be obtained in order to use pre-cast storm drainage structures in any street right-of-way by Town Engineer.
2. Concrete pipe used within the street right-of-way shall be a minimum of Class III Reinforced Concrete Pipe, with a minimum diameter of fifteen (15) inches. Installation of Class IV or higher concrete pipe shall be identified on the As-Built Plan and the Town inspector shall be given documentation and notification of this information prior to construction.
3. Concrete mortar joints shall be used for joining all concrete pipes. The pipe shall be clean and moist when mortar is applied. The lower portions of the bell or groove shall be filled with mortar sufficient to bring the inner surface flush and even when the next joint is fitted into place. The remainder of the joint shall then be filled with mortar and a bead or ring of mortar formed around the outside of the joint. The application of mortar may be delayed until fill is completed when the pipe is larger than thirty (30) inches.
4. Preformed joint sealer, which conforms to AASHTO specification M-198 for Type B flexible plastic gaskets, may be used in lieu of the mortar joining method.

C. INSTALLATION OF REINFORCED CONCRETE AND CORRUGATED METAL PIPE.

1. All backfill shall be non-plastic in nature, free from roots, vegetative matter, waste, construction material or other objectionable material. Said material shall be capable of being compacted by mechanical means and shall have no tendency to flow or behave in a plastic manner under the tamping blows or proof rolling.
2. Materials deemed by the Engineer as unsuitable for backfill purposes shall be removed and replaced with select backfill material.
3. Backfilling of trenches shall be accomplished immediately after the pipe is laid. The fill around the pipe shall be placed in layers not to exceed eight (8) inches, each layer shall be thoroughly compacted to 95% of the maximum density obtainable with the Standard Proctor Test (a density of 100% Standard Proctor is required for the top eight (8) inches).

4. Compaction requirements shall be attained by the use of mechanical compaction methods. Each layer of backfill shall be placed loose and thoroughly compacted in place.
5. Under no circumstances shall water be permitted to rise in un-backfilled trenches after the pipe has been placed.

D. STANDARDS FOR DESIGN

1. All storm drainage design shall conform to the standards and specifications as provided in the Charlotte-Mecklenburg Storm Water Design Manual, North Carolina Department of Transportation Standards Specifications for Roads and Structures, TOS Land Development Standards Manual, or the more restrictive of any standards that conflict.

2. Adequate storm drainage shall be provided throughout the development by means of storm drainage pipes or properly graded channels. All pipes shall be of adequate size and capacity, as approved by the Town Engineer, to carry all storm water in its drainage area.

3. The Town Engineer shall review the drainage plan for compliance with the standards contained in the current edition of the TOS Land Development Standards Manual and the Charlotte-Mecklenburg Storm Water Design Manual and all other relevant and appropriate standards established by the Town Engineer.

4. Sub-surface drainage shall be provided where the ground water level is likely to be near the surface. In capillary soils, the water level should be four (4) to six (6) feet below the surface to prevent the rise of moisture into the subgrade. Subdrains shall be used to lower ground water in low areas in the street.

5. The NCDOT Standard Drawings have been accepted as approved standards to be specified for Land Development projects in the Town of Stallings.

III. PLAN REQUIREMENTS

A. GENERAL NOTES

1. All erosion control measures shall conform to the standards set forth in the North Carolina Erosion and Sediment Control Planning and Design, or the more restrictive of any standards that conflict.

2. All storm drainage design shall conform to the standards and specifications as provided in the Charlotte-Mecklenburg Storm Water Design Manual, Stallings Land Development Standards Manual, or the more restrictive of any standards that conflict.

3. In areas where the Floodway Regulations are applicable, the FEMA Flood Fringe Line and FEMA Encroachment Line shall be shown on the preliminary plan and the final plat.

4. Cite all appropriate standard detail numbers for any structures or specifics used within the plans in reference to the most current copy of the TOS Land Development Standards Manual.

B. SUBDIVISION PRELIMINARY PLAN

1. The preliminary plan must include, at a minimum, the information described in the Town of Stallings Unified Development Ordinance.

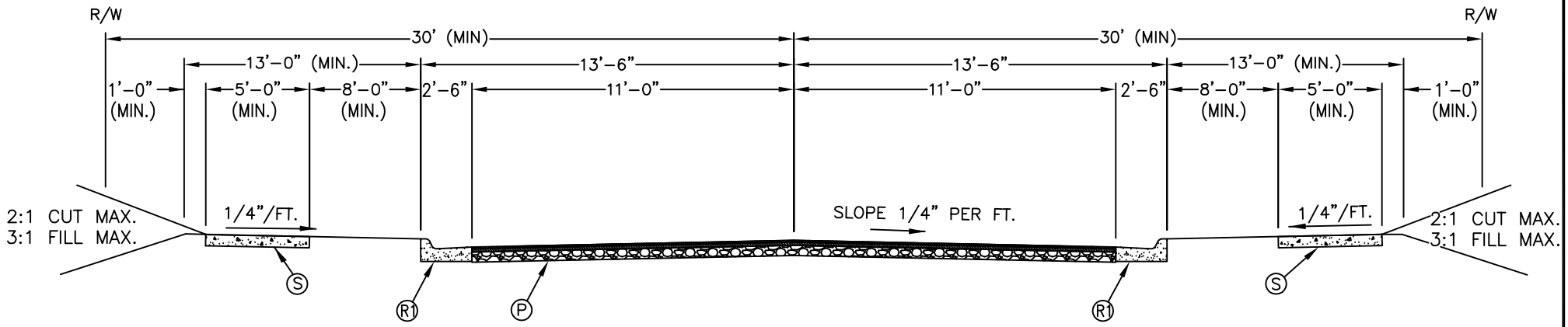
2. Storm Drainage Easements shall be provided for all storm drainage pipe and shown on site plans, construction plans and plats with widths specified below. The following note shall be placed on all grading plans and plats; "The purpose of the storm drainage easement (SDE) is to provide storm water conveyance. Buildings are not permitted in the easement area. Any other objects which impede storm water flow or system maintenance are also prohibited."

PIPES		CHANNELS	
Diameter	Width	Cfs for Q_{100} (CFS)	Channel Easement Width (feet)
15” and smaller	15’ centered	5-16	30’ centered
18” – 33”	20’ centered	17-70	60’ centered
36” and larger	30’ centered	71 or greater	100’ + width of channel centered

3. Overlapping of storm drainage easements shall be approved by the Town Engineer.

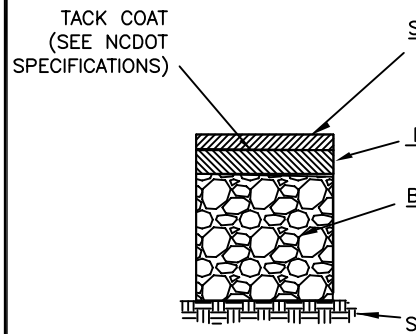
IV. REFERENCES

- North Carolina Department of Transportation, most recent edition, Standard Specifications for Roads and Structures.
- North Carolina Department of Transportation, most recent edition, Roadway Standards Drawings.
- City of Charlotte Department of Transportation, most recent edition, Work Area Traffic Control Handbook (WATCH)
- Charlotte - Mecklenburg Storm Water Design Manual
- American Association of State Highway and Transportation Officials most recent edition, A Policy on Geometric Design of Highways and Streets
- North Carolina Department of Transportation, Roadway Design Manual, latest edition
- North Carolina Department of Environment and Natural Resources most recent edition, Erosion and Sediment Control Planning and Design Manual
- NCDENR, Storm Water Best Management Practices, latest edition.
- City of Charlotte Land Development Standards Manual, latest edition.



KEY

- (R1) 2'-6" CURB AND GUTTER
- (S) 4" CONCRETE SIDEWALK (THICKNESS) 6" AT ALL DRIVEWAYS
- (P) TYPICAL PAVEMENT SECTION



SURFACE COURSE
1 1/2" SF9.5B
FINAL LIFT TO BE APPLIED AFTER 75% DEVELOPMENT OCCUPANCY OR 1 YEAR FROM INTERMEDIATE COURSE PLACEMENT (WHICHEVER OCCURS FIRST).

INTERMEDIATE COURSE
1 1/2" S9.5B, SF9.5A

BASE COURSE
8" COMPACTED AGGREGATE BASE COURSE, OR 4" BCBC TYPE B25.0B SHOULD ENTIRE DEVELOPMENT HAVE A CBR OF 6 OR GREATER, THEN AN ALTERNATIVE BASE COURSE PAVEMENT DESIGN MAY BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL.

SUBGRADE
COMPACT SUBGRADE TO AASHTO STANDARDS AND SPECIFICATIONS

TYPICAL MINIMUM PAVEMENT SECTION

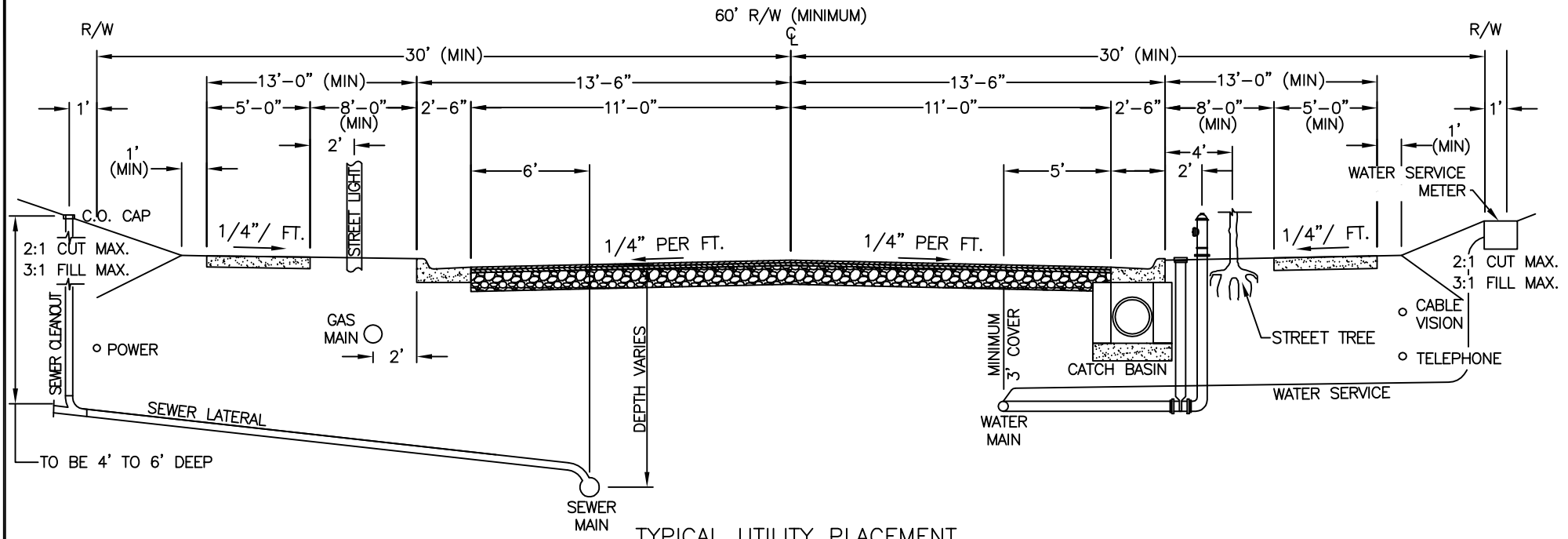
NOTES:

1. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BASED ON SPECIFIC TRAFFIC PARAMETERS.
2. ALL DIMENSIONS NOTED AS MINIMUMS ARE SUBJECT TO STANDARDS REQUIRED BY ARTICLES 13 AND 16 OF THE STALLINGS DEVELOPMENT ORDINANCE.
3. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
4. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RESIDENTIAL STREET SECTION

STD. NO.	REV.
10.01	



TYPICAL UTILITY PLACEMENT

NOTES:

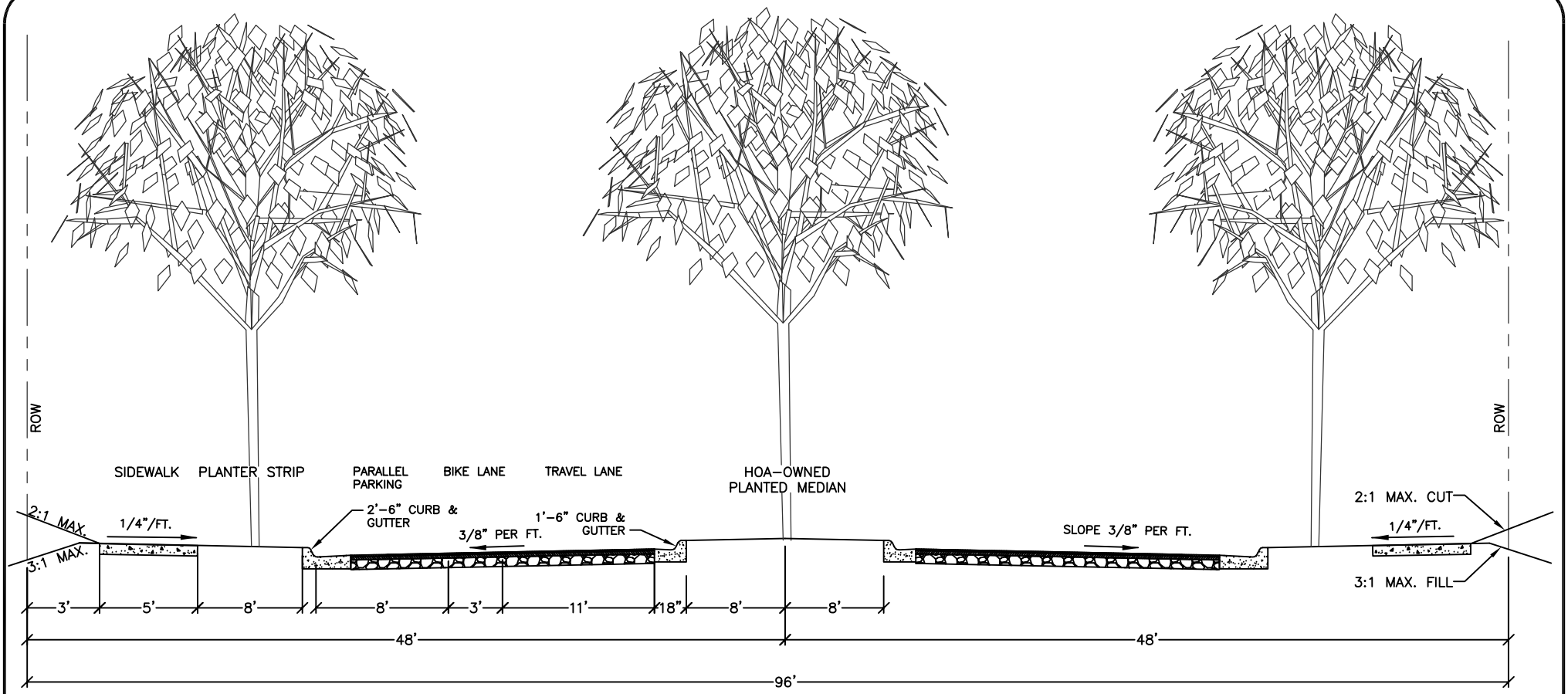
1. ALL DIMENSIONS NOTED AS MINIMUM ARE SUBJECT TO STANDARDS REQUIRED BY ARTICLES 13 AND 16 OF THE TOWN OF STALLINGS DEVELOPMENT ORDINANCE.
2. WATER AND SEWER MAY BE REVERSED FROM LOCATION SHOWN ABOVE.
3. WATER AND SEWER SEPARATION SHALL BE IN ACCORDANCE WITH SECTION .0900 OF THE RULES GOVERNING PUBLIC WATER SYSTEMS.
4. WATER AND SEWER SHALL BE INSTALLED UNDER PAVEMENT TO MINIMIZE DISRUPTION TO PRIVATE PROPERTY DURING MAINTENANCE ACTIVITIES.
5. TELEPHONE, CABLE TV, AND POWER SHALL BE LOCATED JUST INSIDE THE STREET RIGHT-OF-WAY (COLOCATION IS REQUIRED).
6. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
7. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.

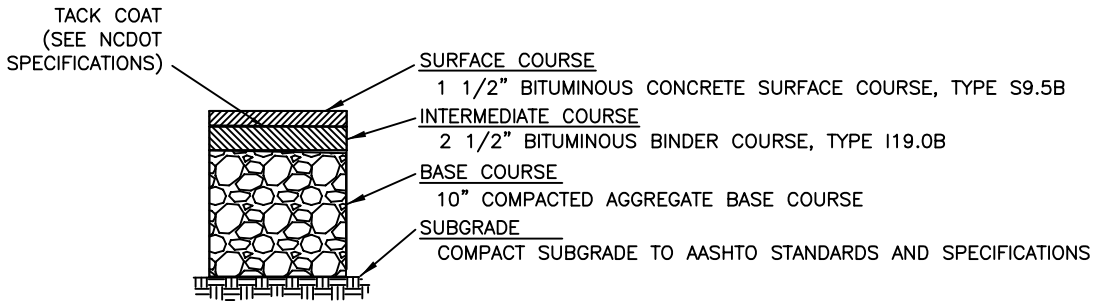
TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

STREET SECTION WITH UTILITIES
60' RIGHT-OF-WAY

STD. NO.	REV.
10.02	





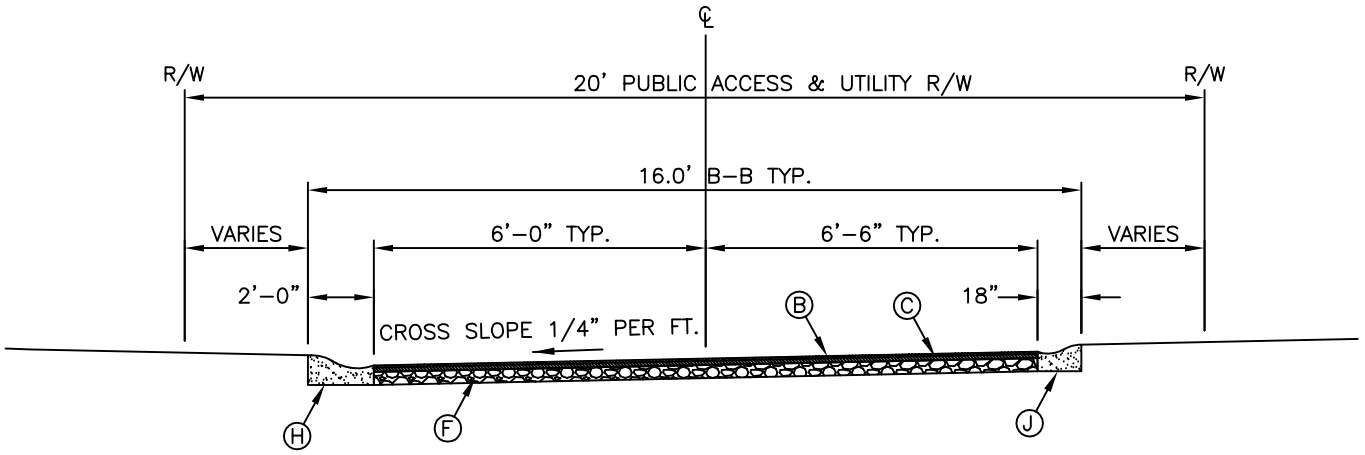
TYPICAL MINIMUM PAVEMENT SECTION

NOTES:
1. FOR UTILITY LOCATIONS SEE 10.02.
2. CONCRETE SIDEWALK SHALL BE A MINIMUM OF 4" THICK EXCEPT AT DRIVEWAYS WHERE MINIMUM THICKNESS SHALL BE 6".
3. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS–OF–WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
4. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS–OF–WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RESIDENTIAL COLLECTOR STREET SECTION

STD. NO.	REV.
10.03	



PAVEMENT SCHEDULE

Ⓟ 1 1/4" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S9.5B

Ⓒ 2 1/4" BITUMINOUS CONCRETE BINDER COURSE, TYPE I19.0B

Ⓕ 5" COMPACTED AGGREGATE BASE COURSE

Ⓗ 2'–0" STANDARD VALLEY GUTTER

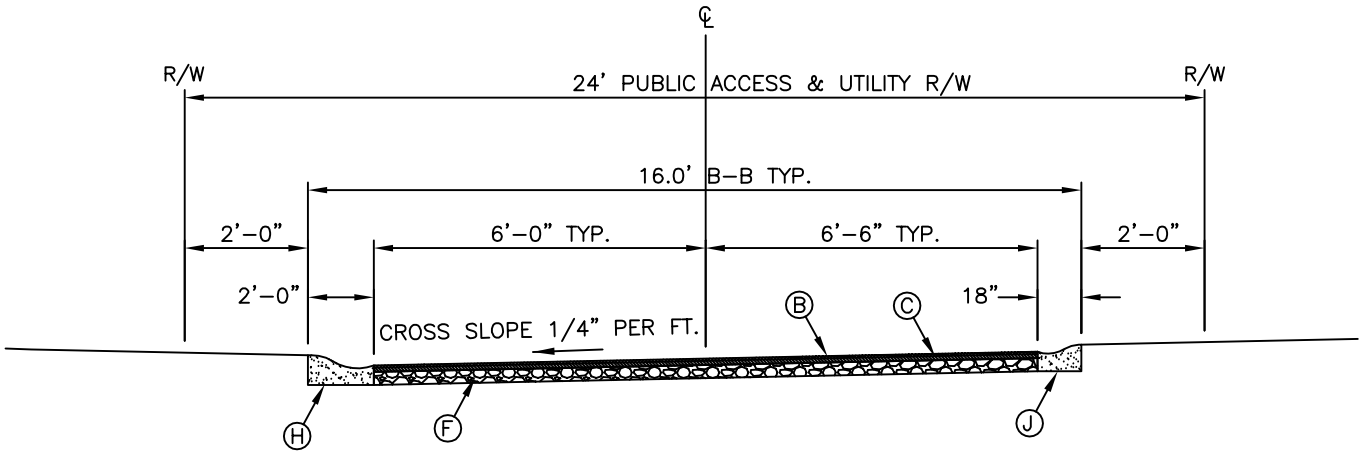
Ⓙ 1'–6" STANDARD VALLEY GUTTER

(NOT TO SCALE)

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

STANDARD ALLEY SECTION

STD. NO.	REV.
10.04	



PAVEMENT SCHEDULE

Ⓟ 1 1/4" BITUMINOUS CONCRETE SURFACE COURSE, TYPE S9.5B

Ⓒ 2 1/4" BITUMINOUS CONCRETE BINDER COURSE, TYPE I19.0B

Ⓕ 5" COMPACTED AGGREGATE BASE COURSE

Ⓗ 2'–0" STANDARD VALLEY GUTTER

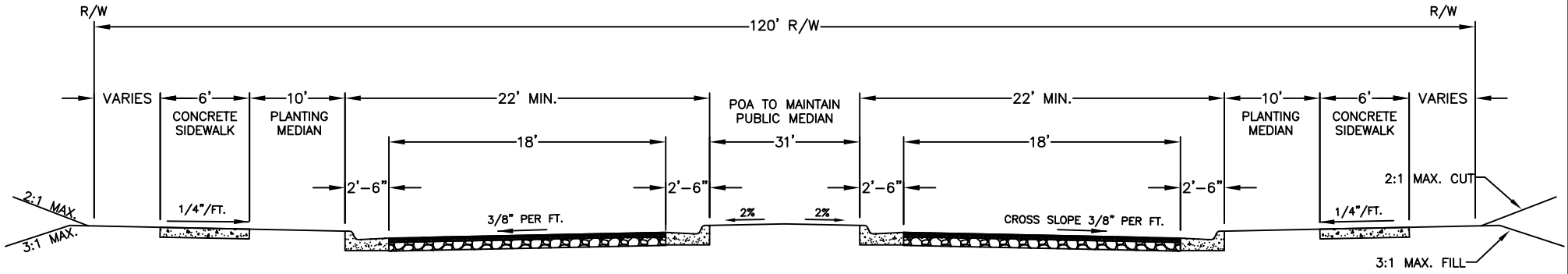
Ⓙ 1'–6" STANDARD VALLEY GUTTER

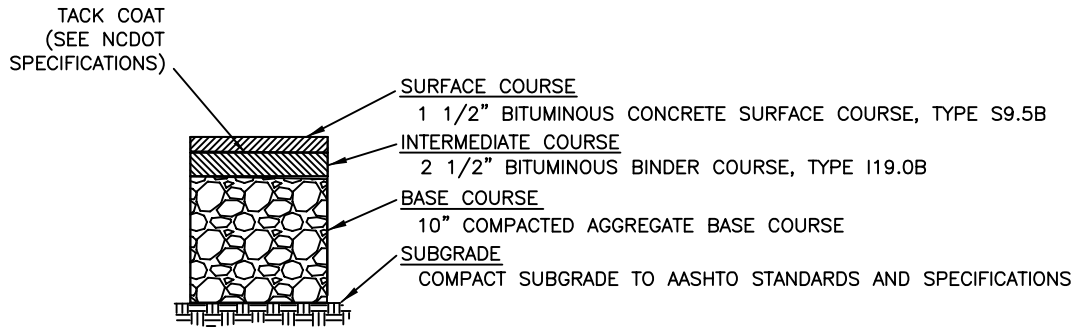
(NOT TO SCALE)

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

EXTRA WIDTH ALLEY SECTION

STD. NO.	REV.
10.05	





TYPICAL MINIMUM PAVEMENT SECTION

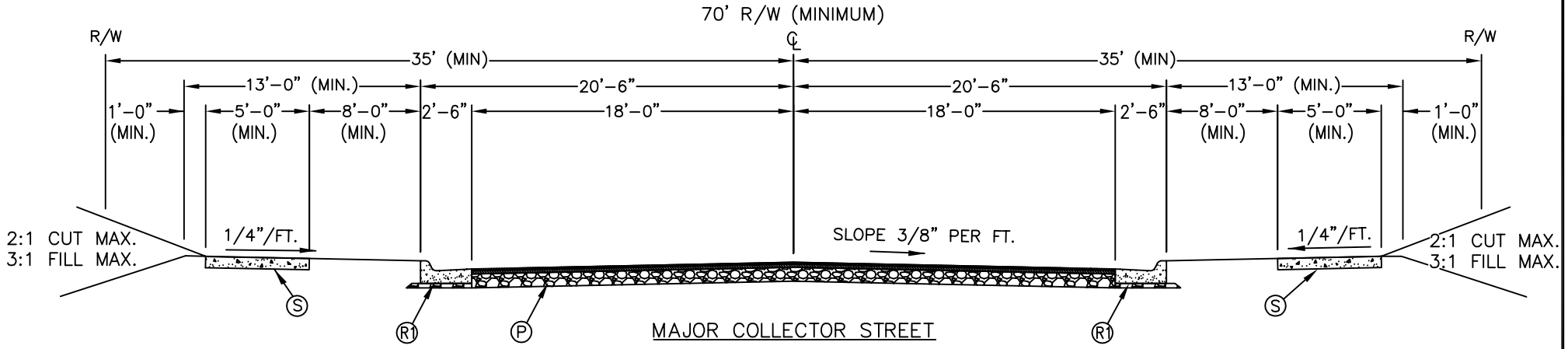
NOTES:
1. FOR UTILITY LOCATIONS SEE 10.02.
2. CONCRETE SIDEWALK SHALL BE A MINIMUM OF 4" THICK EXCEPT AT DRIVEWAYS WHERE MINIMUM THICKNESS SHALL BE 6".
3. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
4. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.

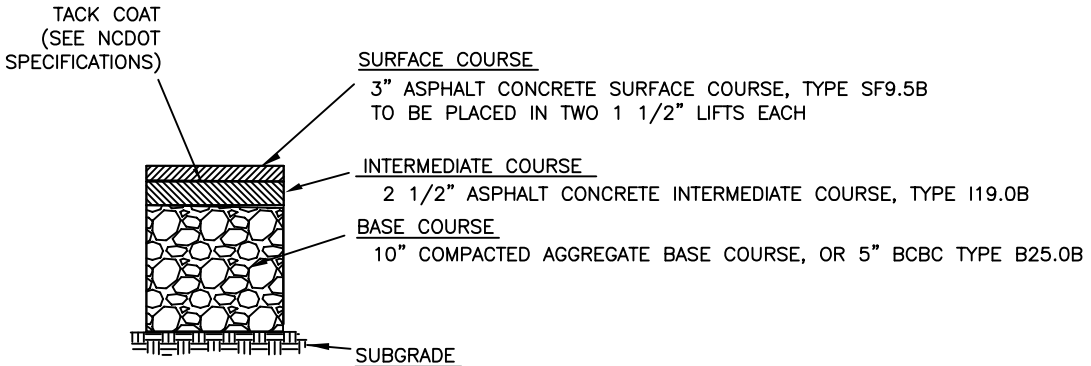
TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

DIVIDED HEAVY DUTY COMMERCIAL BOULEVARD STREET SECTION

STD. NO.	REV.
10.06	





TYPICAL MINIMUM PAVEMENT SECTION

KEY

- Ⓡ1 2'-6" CURB AND GUTTER
- Ⓢ 4" CONCRETE SIDEWALK (THICKNESS) 6" AT ALL DRIVEWAYS
- Ⓟ TYPICAL PAVEMENT SECTION

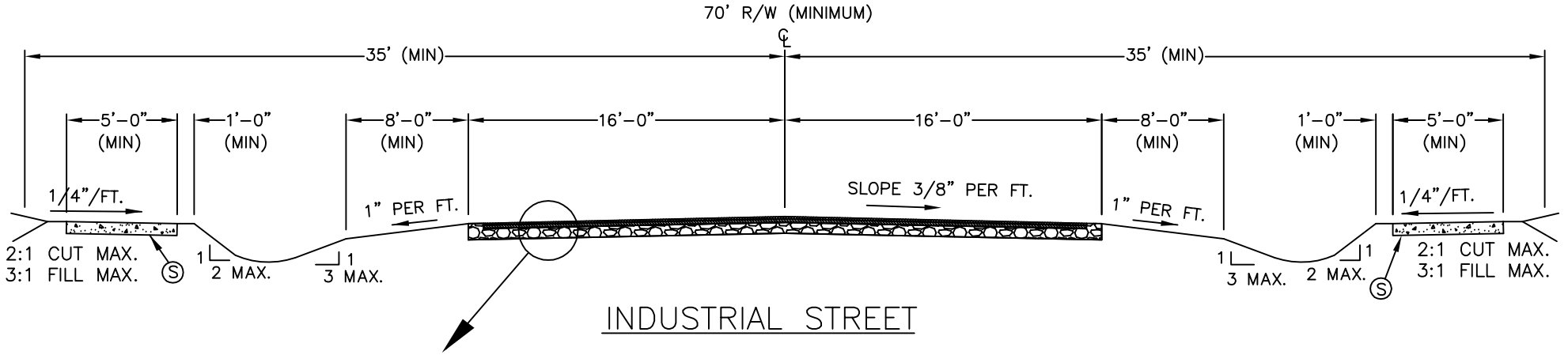
NOTES:

1. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN TO TOWN ENGINEER.
2. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY NCDOT BASED ON SPECIFIC TRAFFIC PARAMETERS.
3. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
4. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.
5. ALL PROPOSED ROADWAYS IN COMMERCIAL AND INDUSTRIAL DEVELOPMENTS SHALL BE CONSIDERED COMMERCIAL COLLECTOR STREETS.

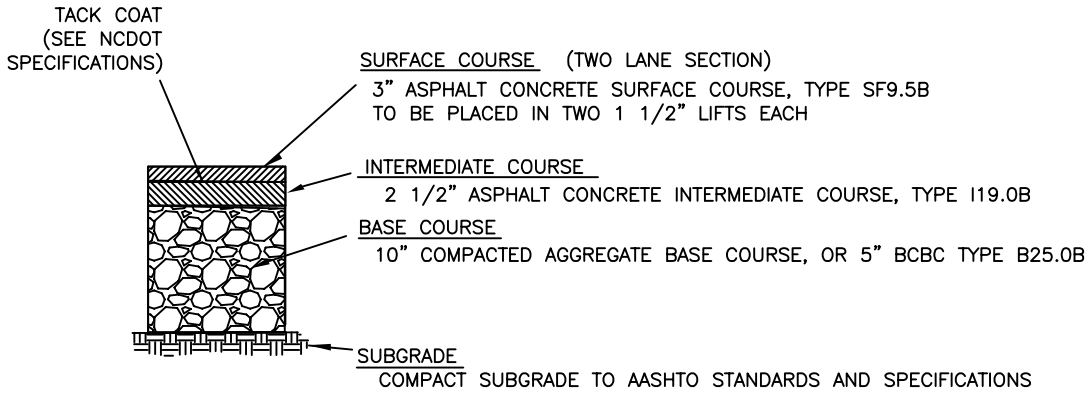
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

MAJOR COLECTOR & INDUSTRIAL STREET

STD. NO.	REV.
10.07	



INDUSTRIAL STREET



TYPICAL MINIMUM PAVEMENT SECTION

KEY

Ⓢ 4" CONCRETE SIDEWALK (THICKNESS)
6" AT ALL DRIVEWAYS

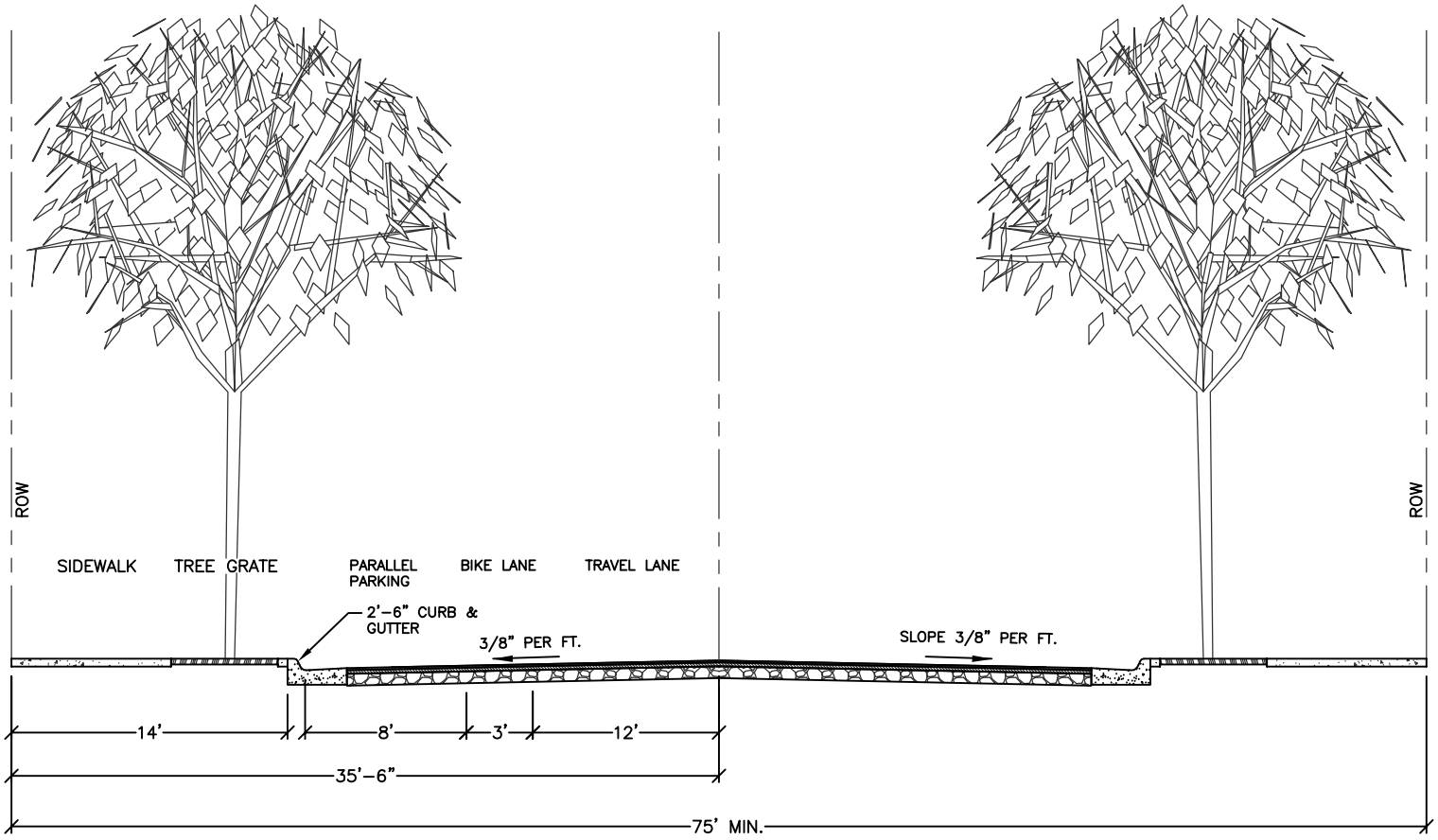
NOTES:

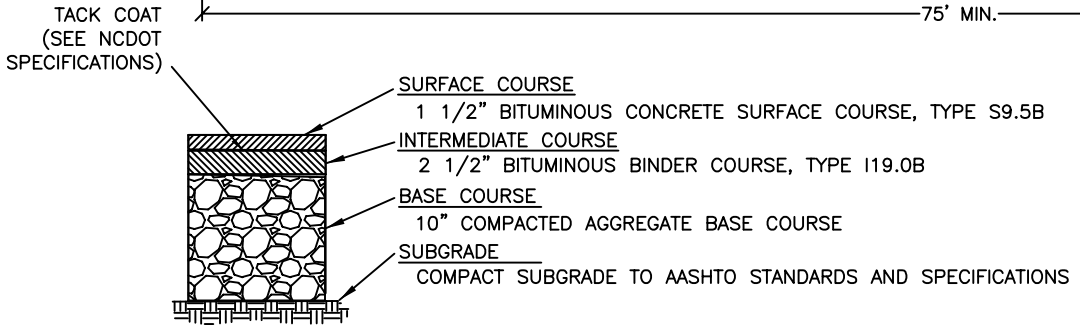
1. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN TO TOWN ENGINEER.
2. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY NCDOT BASED ON SPECIFIC TRAFFIC PARAMETERS.
3. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
4. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.
5. ALL PROPOSED ROADWAYS IN COMMERCIAL AND INDUSTRIAL DEVELOPMENTS SHALL BE CONSIDERED COMMERCIAL COLLECTOR STREETS.
6. SIDEWALK EASEMENT MAY BE REQUIRED.

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

INDUSTRIAL STREET (DITCH TYPE)

STD. NO.	REV.
10.08	





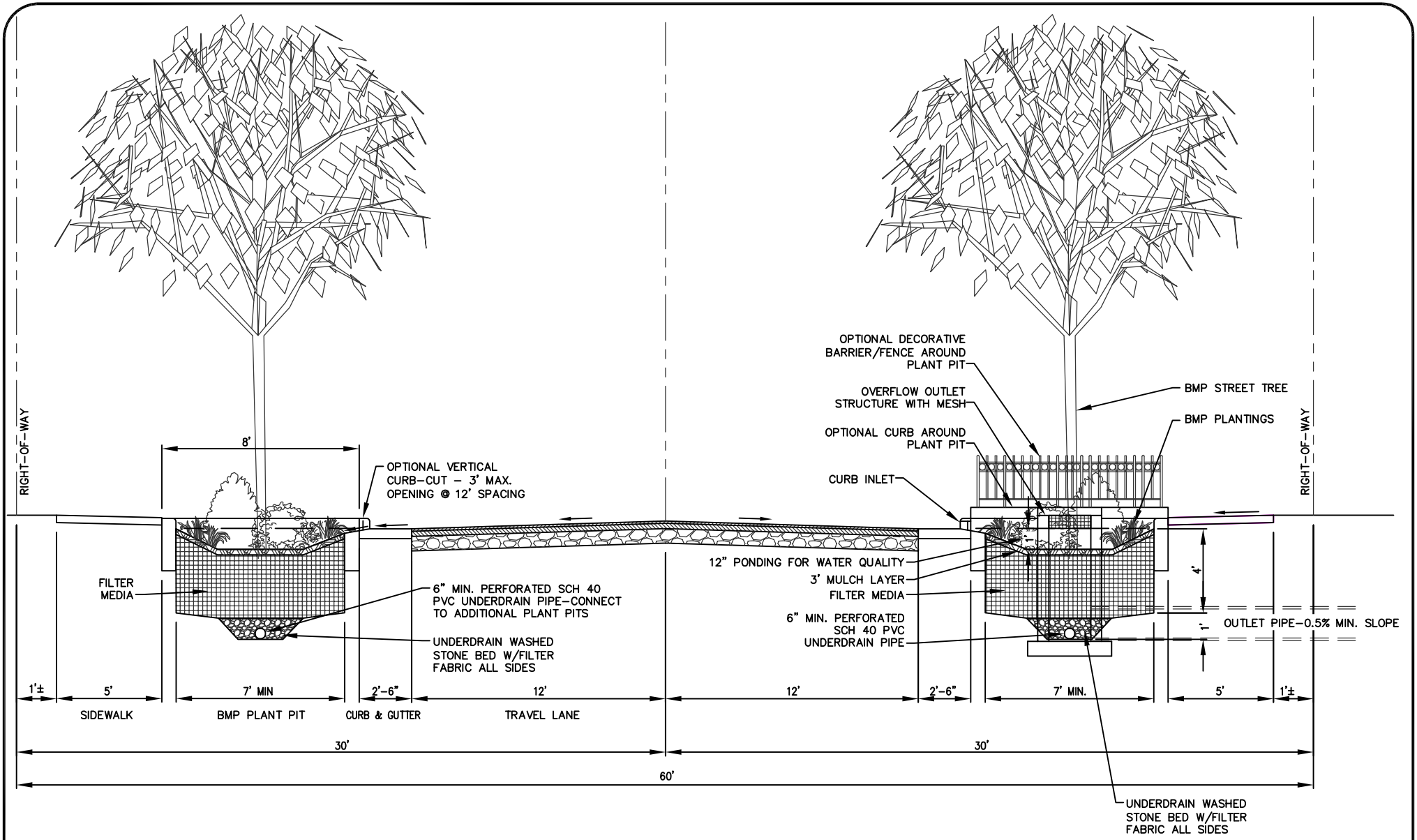
TYPICAL MINIMUM PAVEMENT SECTION

NOTES:
1. FOR UTILITY LOCATIONS SEE 10.02.
2. CONCRETE SIDEWALK SHALL BE A MINIMUM OF 4" THICK EXCEPT AT DRIVEWAYS WHERE MINIMUM THICKNESS SHALL BE 6".
3. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS.
4. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL BE APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION.

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

MAIN STREET
URBAN STREET SECTION

STD. NO.	REV.
10.09	



TOWN OF STALLINGS

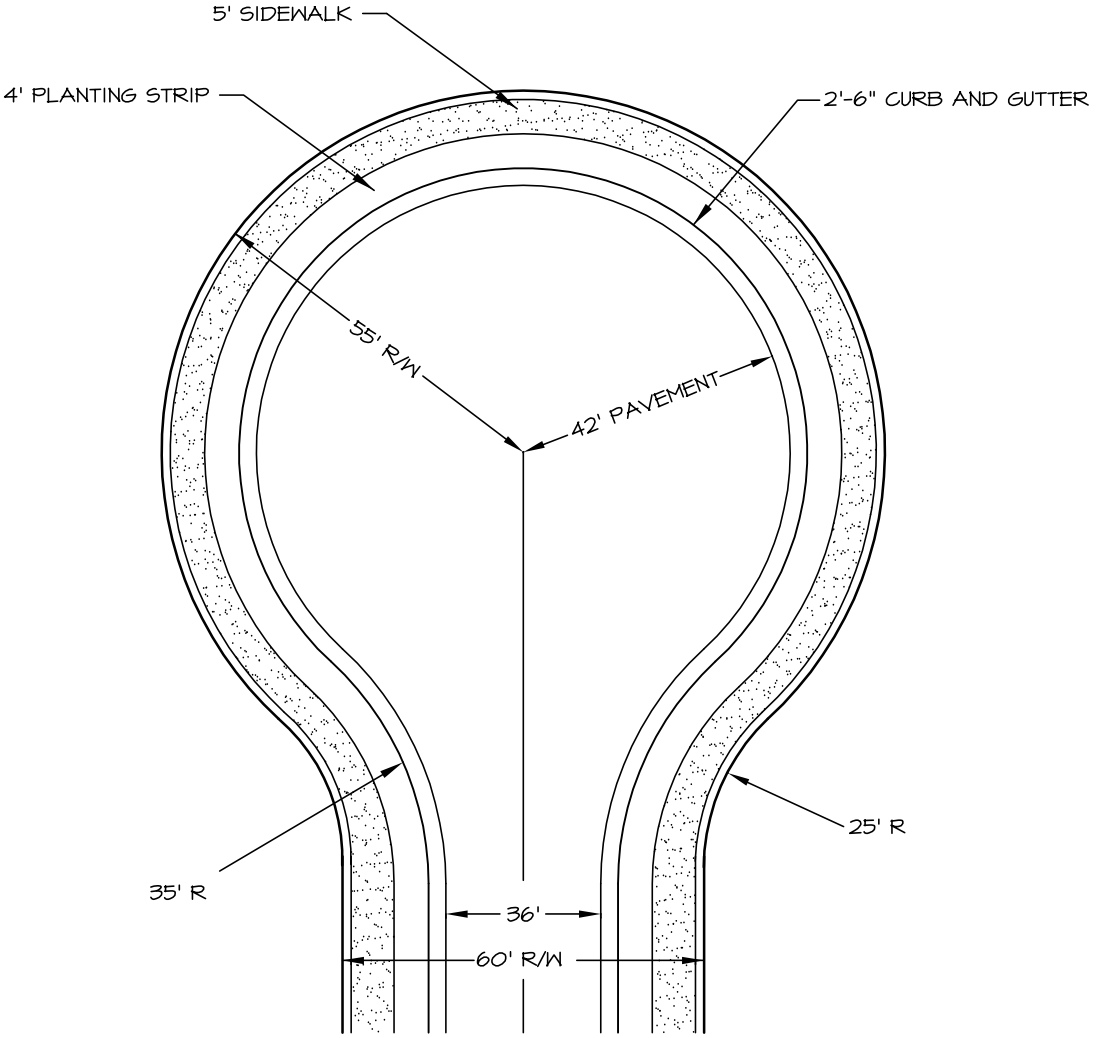
LAND DEVELOPMENT STANDARDS

URBAN/NEIGHBORHOOD STREET SECTION WITH STORM BMP

STD. NO.	REV.
10.10	

NOTES:

1. ALTERNATIVE CUL-DE-SAC DESIGNS, INCLUDING ISLANDS SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.
2. PAVEMENT SECTION SHALL CONFORM WITH THE DESIGN REQUIREMENTS FOR COMMERCIAL STREETS.
3. THE CROWN FOR PAVEMENT SHALL BE 1/4" PER FT FROM THE CENTER OF THE CUL-DE-SAC.
4. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF STALLINGS
5. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL APPROVED BY THE TOWN OF STALLINGS PRIOR TO INSTALLATION



NOT TO SCALE

TOWN OF STALLINGS

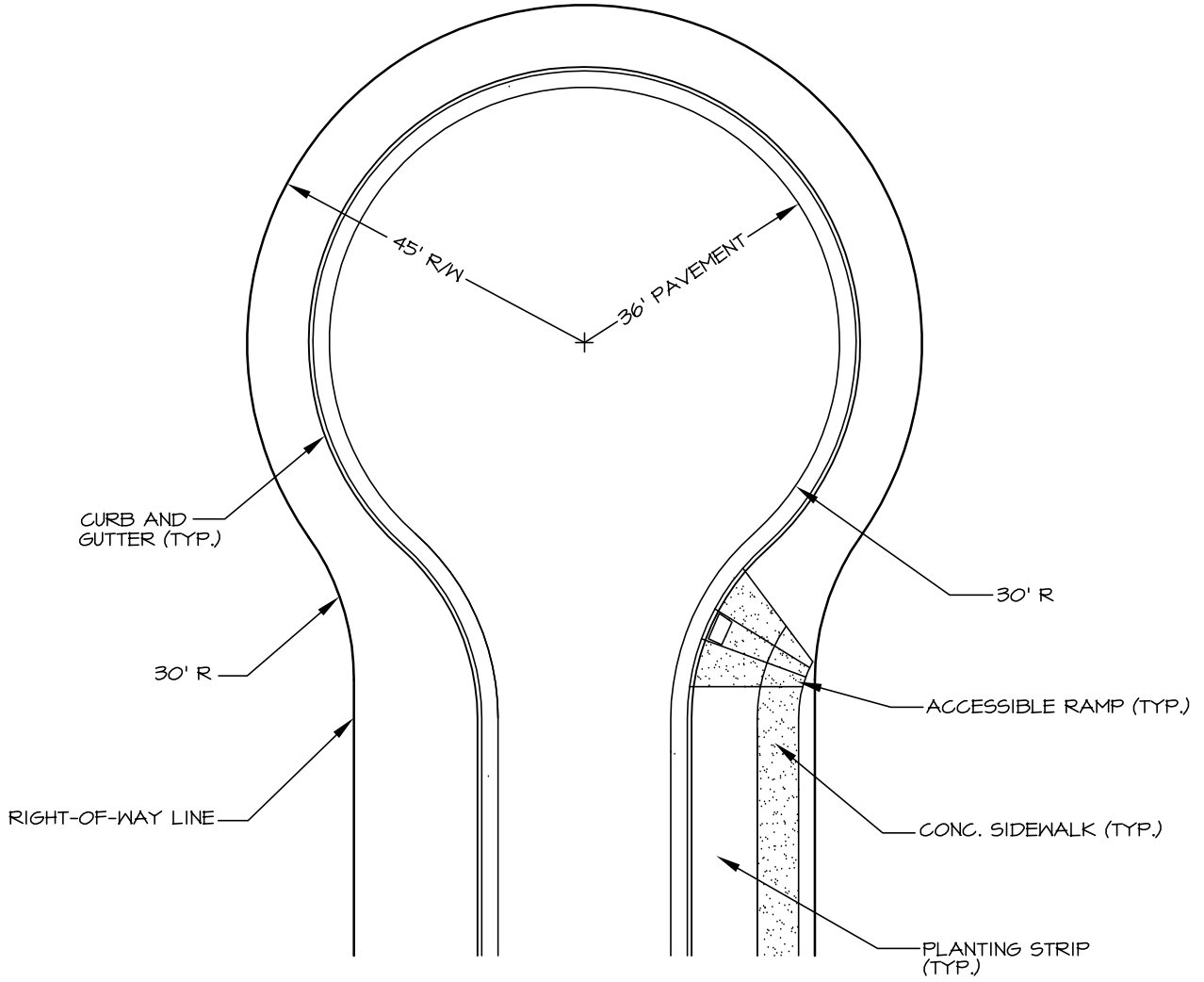
LAND DEVELOPMENT STANDARDS

MINOR COLLECTOR CUL-DE-SAC

STD. NO.	REV.
10.13	

NOTES:

1. ALTERNATIVE CUL-DE-SAC DESIGNS, INCLUDING ISLANDS SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.
2. SIDEWALK MAY BE REQUIRED TO EXTEND AROUND CUL-DE-SAC BULB WHERE PARKS OR SCHOOLS HAVE FRONTAGE TO THE END OF THE CUL-DE-SAC.
3. THE CROWN FOR PAVEMENT SHALL BE 1/4" PER FT FROM THE CENTER OF THE CUL-DE-SAC.

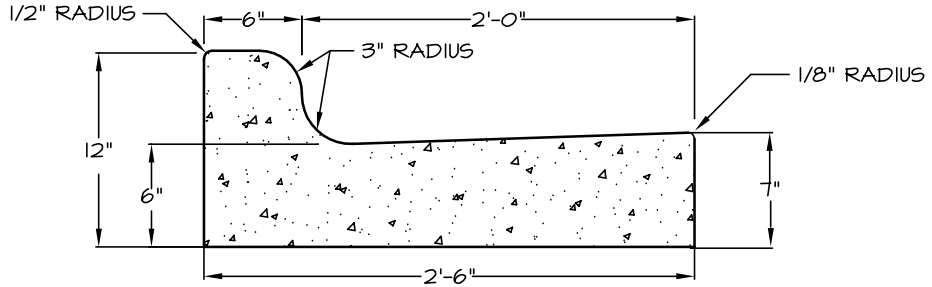


NOT TO SCALE

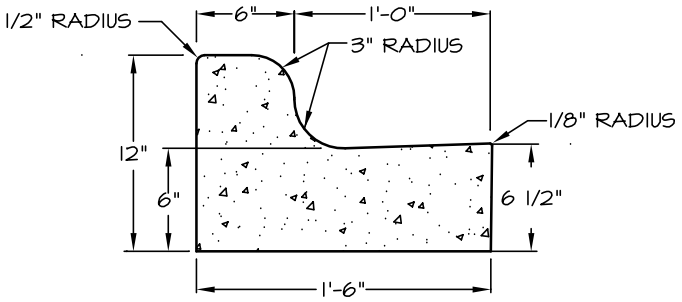
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RESIDENTIAL CUL-DE-SAC

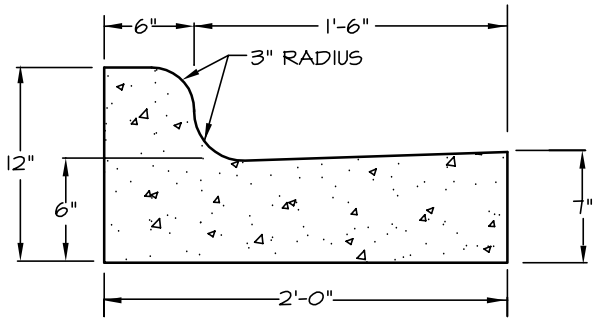
STD. NO.	REV.
10.14	



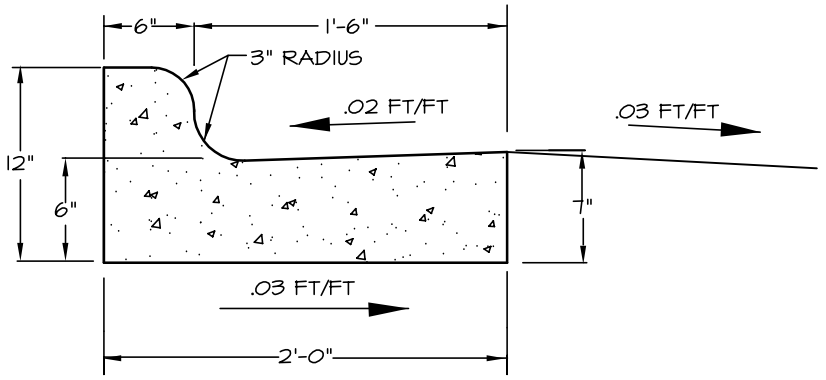
STANDARD 2'-6" CURB AND GUTTER



1'-6" STANDARD CURB AND GUTTER



2'-0" STANDARD CURB & GUTTER



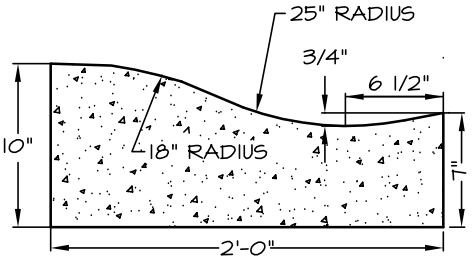
SLOPE FOR VARIABLE
SUPERELEVATION RATES

NOT TO SCALE

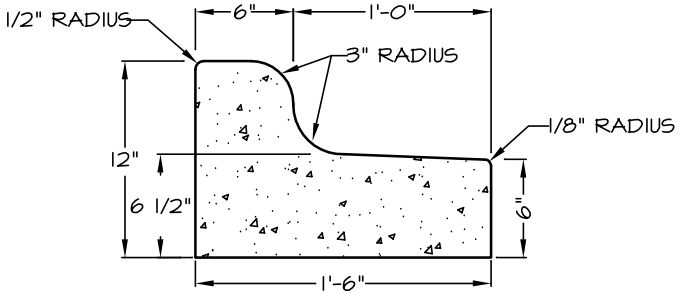
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

STANDARD CURB AND GUTTER

STD. NO.	REV.
10.17A	

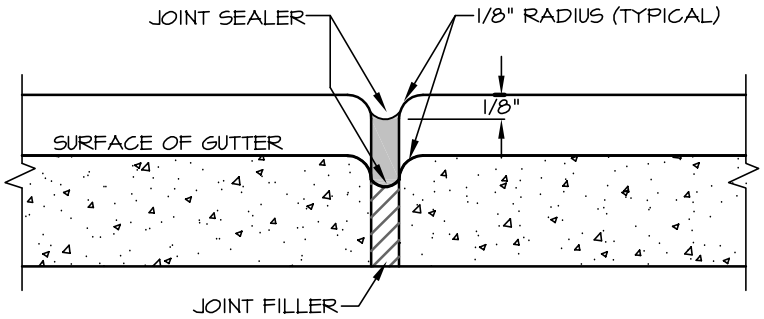


2'-0" VALLEY GUTTER

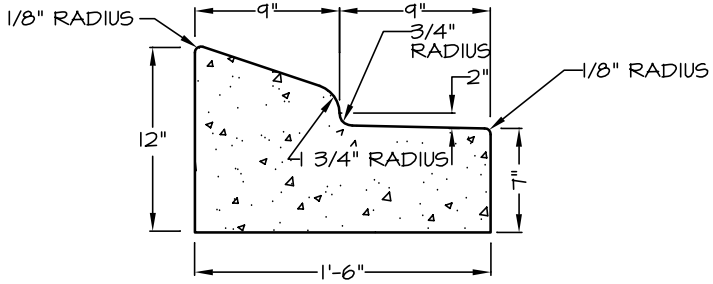


1'-6" MEDIAN CURB AND GUTTER

TO BE USED IN MEDIANS WHEN LANES ARE SLOPED FROM ISLAND OR AS SPECIFIED BY THE TOWN ENGINEER.



TRANSVERSE EXPANSION JOINT



1'-6" MOUNTABLE CURB AND GUTTER

TO BE USED IN MEDIANS ONLY: WHEN SPECIFIED BY THE APPROPRIATE TOWN ENGINEERING DEPT.

NOTES:

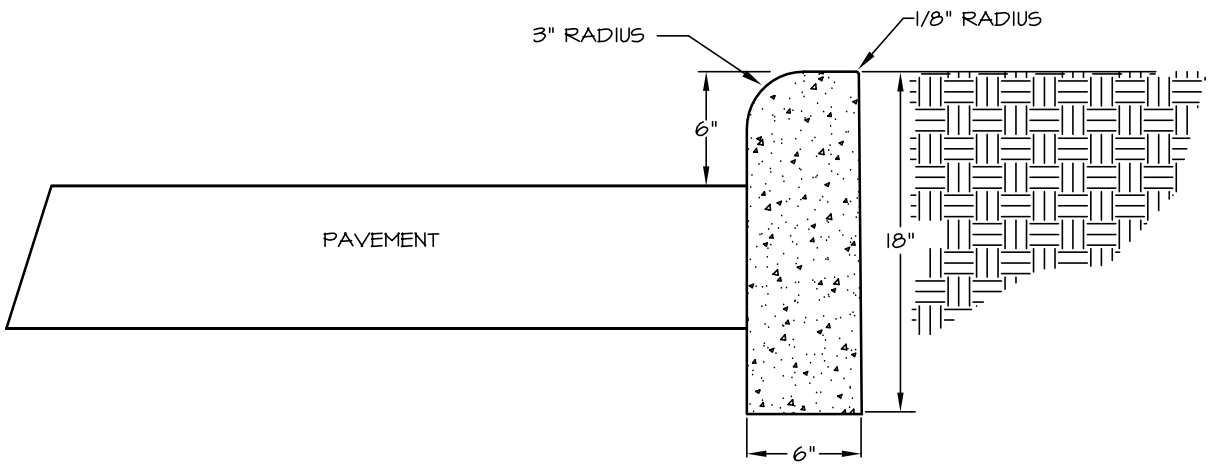
1. CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. FOR VALLEY GUTTER, A 10-FOOT SPACING MAY BE USED WHEN A MACHINE IS USED. JOINT SPACING MAY BE ALTERED BY THE TOWN ENGINEER TO PREVENT UNCONTROLLED CRACKING.
2. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
3. ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 P.S.I. IN 28 DAYS.
5. CURB SHALL BE DEPRESSED AT INTERSECTIONS TO PROVIDE FOR FUTURE ACCESSIBLE RAMPS.
6. TOP 6" OF SUBGRADE BENEATH THE CURB AND GUTTER SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CURB AND GUTTER

STD. NO.	REV.
10.17B	



NOTES:

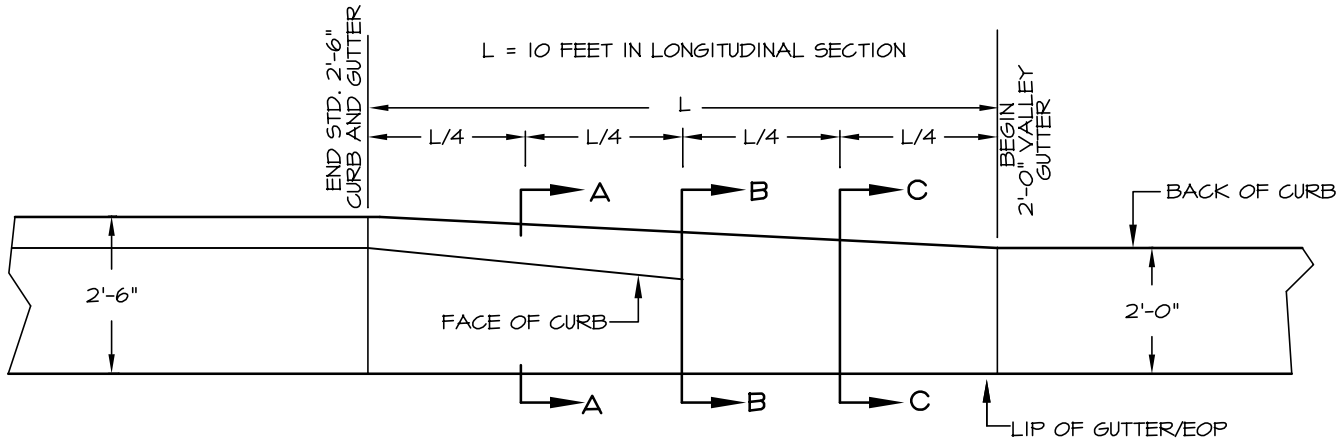
1. CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
2. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
3. ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 P.S.I. IN 28 DAYS.
5. CURB SHALL BE DEPRESSED AT INTERSECTIONS TO PROVIDE FOR FUTURE ACCESSIBLE RAMPS.
6. TOP 6" OF SUBGRADE BENEATH THE CURB SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.
7. DETAIL MAY BE USED FOR PRIVATE DRIVES, PARKING LOTS, AND INTERIOR CIRCULATION DRIVE.

NOT TO SCALE

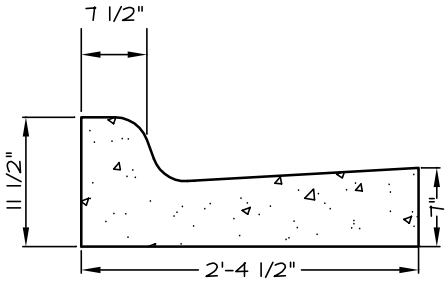
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

18" VERTICAL CURB

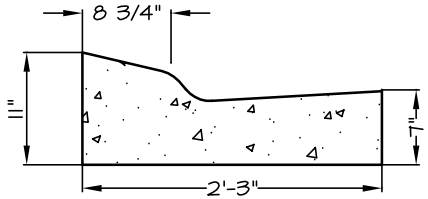
STD. NO.	REV.
10.18	



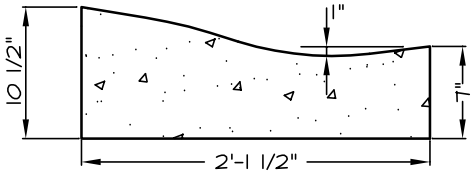
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

1. TRANSITION IS NOT TO BE LOCATED WITHIN THE CURB RADIUS.

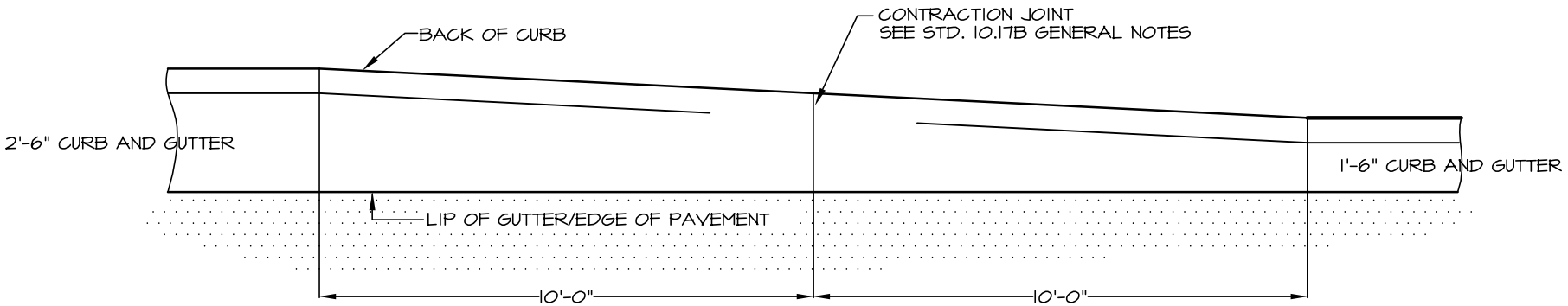
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CURB TRANSITION

2'6" CURB AND GUTTER TO 2'-0" VALLEY GUTTER

STD. NO.	REV.
10.19	



PLAN VIEW

NOTES:

1. TRANSITION TO BE ALONG BACK OF CURB.

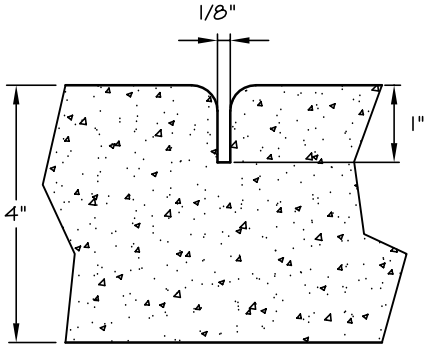
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

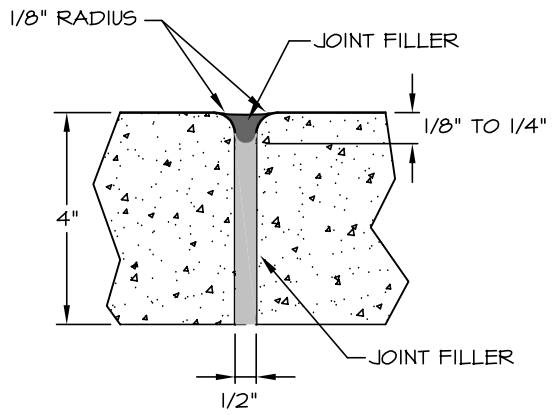
CURB TRANSITION

2'-6" CURB AND GUTTER TO 1'-6" CURB AND GUTTER

STD. NO.	REV.
10.20	



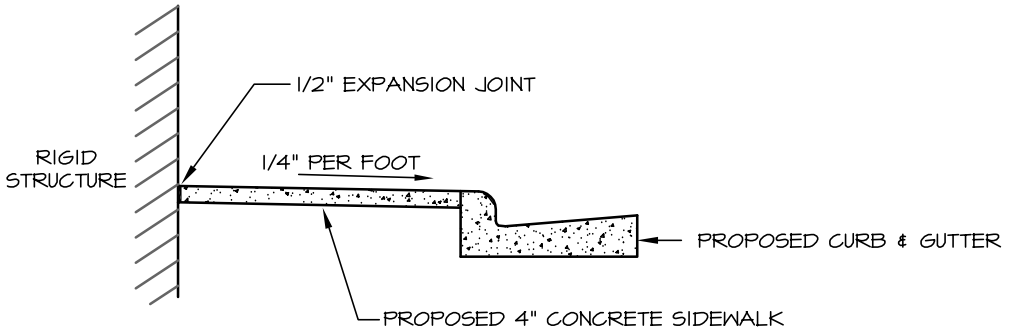
GROOVE JOINT IN SIDEWALK



TRANSVERSE EXPANSION JOINT IN SIDEWALK

GENERAL NOTES:

1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS NOT TO EXCEED 50' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SEALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. SIDEWALK AT DRIVEWAY ENTRANCES TO BE 6" THICK.
3. WIDTH OF SIDEWALK ON THOROUGHFARE STREETS SHALL BE A MINIMUM OF 5'. WIDTH OF SIDEWALKS IN THE CENTRAL BUSINESS DISTRICT WILL BE DETERMINED BY THE TOWN PLANNING DEPT..
4. WIDTH OF SIDEWALKS ON NON-THOROUGHFARE STREETS SHALL BE A MINIMUM OF 4'.
5. SIDEWALK TO BE POURED TO END OF RADIUS AT INTERSECTING STREETS.
6. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI. IN 28 DAYS.
7. ZONING CONDITIONS MAY REQUIRE ADDITIONAL WIDTH SIDEWALKS WHICH SHALL SUPERSEDE THESE STANDARD DIMENSIONS SHOWN.
8. TRANSVERSE EXPANSION JOINTS SHALL BE FILLED WITH AN ELASTIC EPOXY FROM THE FILLER TO FLUSH WITH THE TOP OF THE SIDEWALK



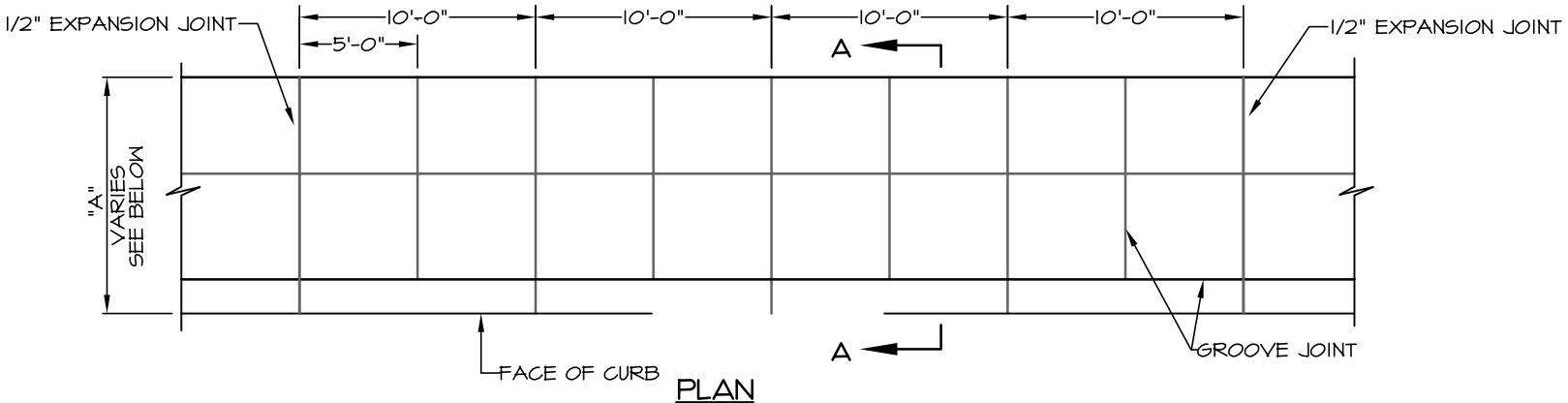
DETAILS SHOWING EXPANSION JOINTS IN CONCRETE SIDEWALK

NOT TO SCALE

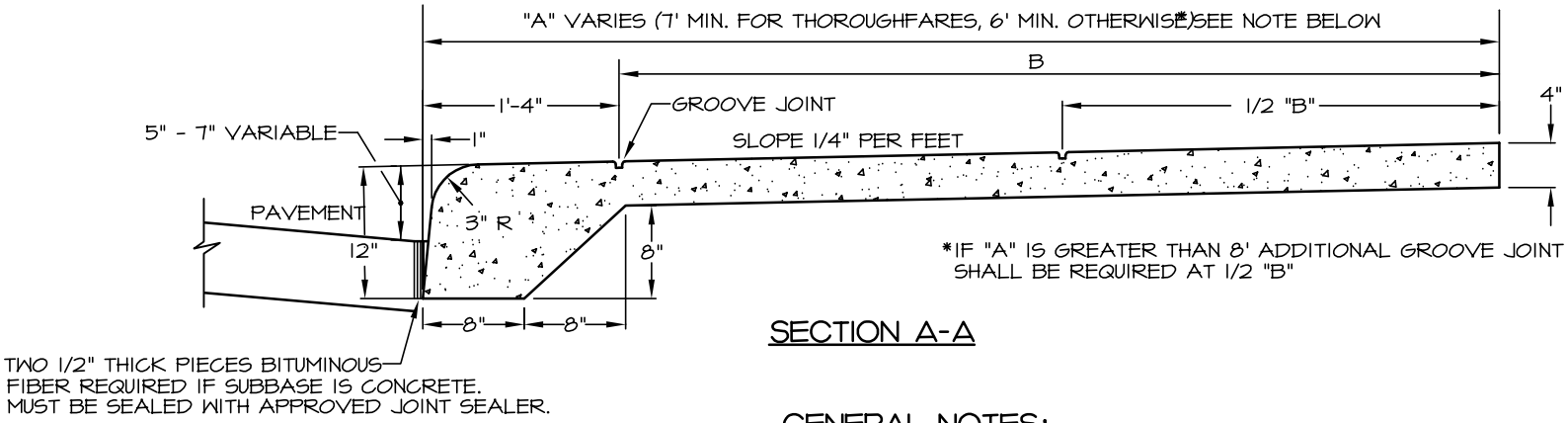
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CONCRETE SIDEWALKS

STD. NO.	REV.
10.22	



PLAN



SECTION A-A

TWO 1/2" THICK PIECES BITUMINOUS FIBER REQUIRED IF SUBBASE IS CONCRETE. MUST BE SEALED WITH APPROVED JOINT SEALER.

GENERAL NOTES:

1. A GROOVE JOINT 1" DEEP WITH 1/3" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 40' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
3. SEE STANDARD 10.22 FOR DETAIL OF EXPANSION JOINT AND GROOVE JOINT.
4. SEE STANDARD 10.26 FOR DETAIL OF DRIVEWAY.
5. MONOLITHIC CURB AND SIDEWALK TO BE CONSTRUCTED ONLY WHEN REPLACING GRANITE CURB OR AT LOCATIONS APPROVED BY THE APPROPRIATE TOWN ENGINEER.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

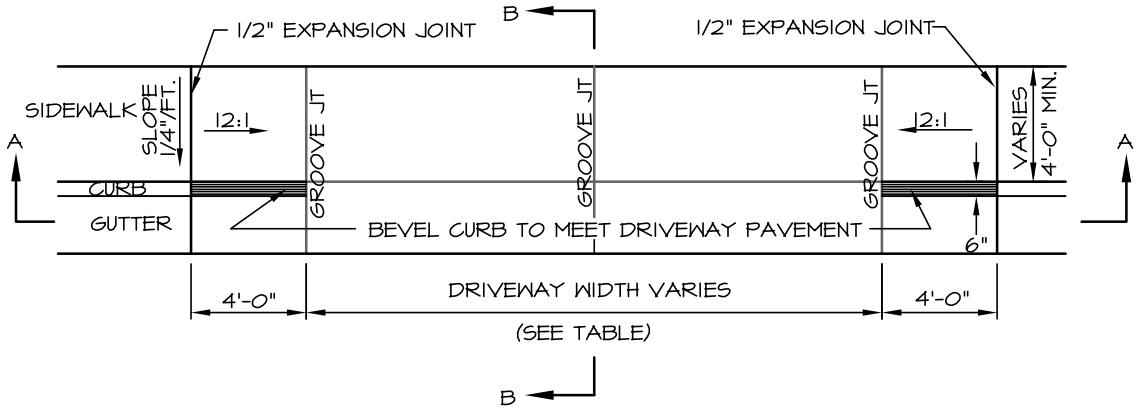
MONOLITHIC CONCRETE CURB AND SIDEWALK

STD. NO.	REV.
10.23	

NOTE:

1. 1/2" EXPANSION JOINTS REQUIRE INSTALLATION OF ONE 1/2" THICK PIECE OF BITUMINOUS FIBER THROUGH THE ENTIRE SLAB.
2. TO LIMIT STORM WATER FLOW DOWN DRIVEWAYS, USE STANDARD 10.24C FOR DRIVEWAYS NEAR LOW POINTS.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY THE TOWN ON GRADES EXCEEDING WHAT ARE SHOWN.

SECTION A - A



PLAN

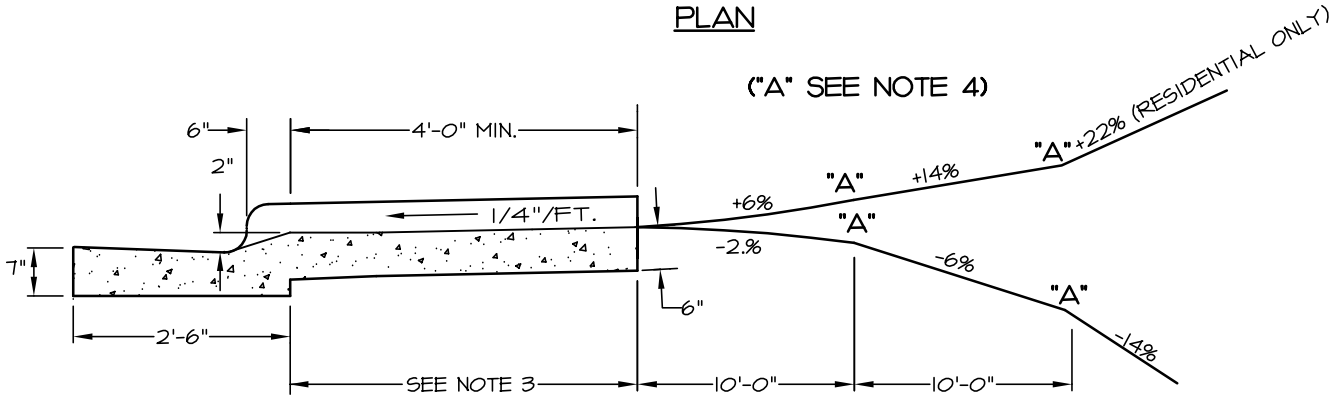
GENERAL NOTES:

ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.

ALL CURB, CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT.
SEE STD. NO 10.17B FOR DETAIL OF EXPANSION JOINT AND GROOVE JOINT.

DRIVEWAY WIDTH		
TYPE DRIVEWAY	MINIMUM	MAXIMUM
TYPE ERESIDENTIAL:		
LOCAL/COLLECTOR	10'	30'
THOROUGHFARE*	15'	30'
ONE-WAY TYPETITT COMMERCIAL	20'	30'
TWO-WAY TYPETTT COMMERCIAL	26'	50'

* MUST PROVIDE ON-SITE TURNAROUND



SECTION B - B

NOT TO SCALE

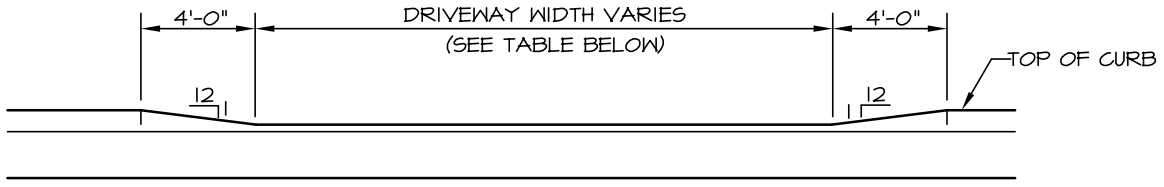
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

COMMERCIAL TYPE II AND RESIDENTIAL TYPE I DROP CURB DRIVEWAY WITH SIDEWALK ABUTTING CURB
(2'-6" CURB AND GUTTER)

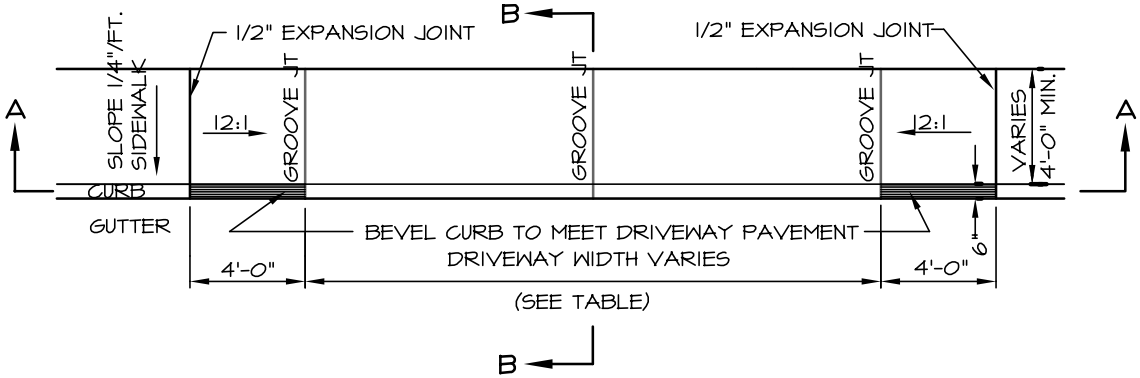
STD. NO.	REV.
10.24A	

NOTE:

1. 1/2" EXPANSION JOINTS REQUIRE INSTALLATION OF ONE 1/2" THICK PIECE OF BITUMINOUS FIBER THROUGH THE ENTIRE SLAB.
2. TO LIMIT STORM WATER FLOW DOWN DRIVEWAYS, USE STANDARD 10.24C FOR DRIVEWAYS NEAR LOW POINTS.
3. ALL DRIVEWAYS MUST MEET THE CURRENT CITY DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.



SECTION A - A



PLAN

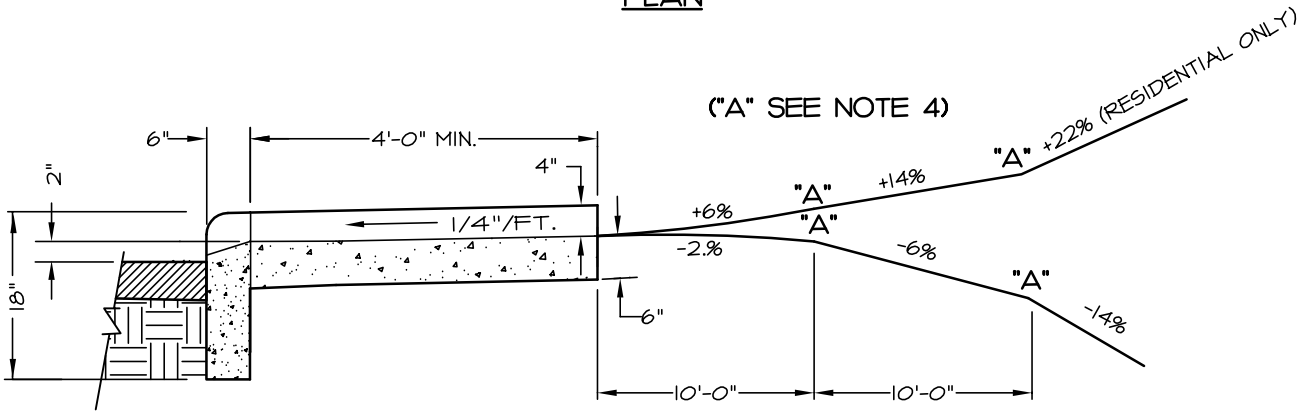
GENERAL NOTES:

ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.

ALL CURB, CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT.
SEE STD. NO 10.17B FOR DETAIL OF EXPANSION JOINT AND GROOVE JOINT.

DRIVEWAY WIDTH		
TYPE DRIVEWAY	MINIMUM	MAXIMUM
TYPE I-RESIDENTIAL:		
LOCAL/COLLECTOR	10'	30'
THOROUGHFARE*	15'	30'
ONE-WAY TYPE II COMMERCIAL	20'	30'
TWO-WAY TYPE II COMMERCIAL	26'	50'

* MUST PROVIDE ON-SITE TURNAROUND



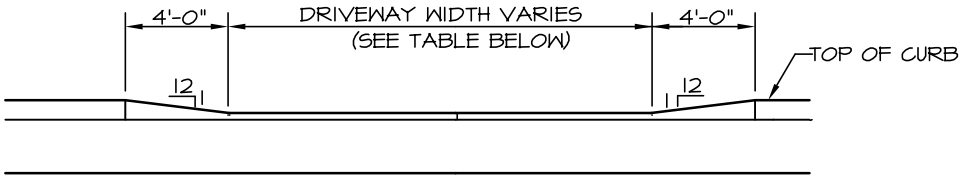
SECTION B - B

NOT TO SCALE

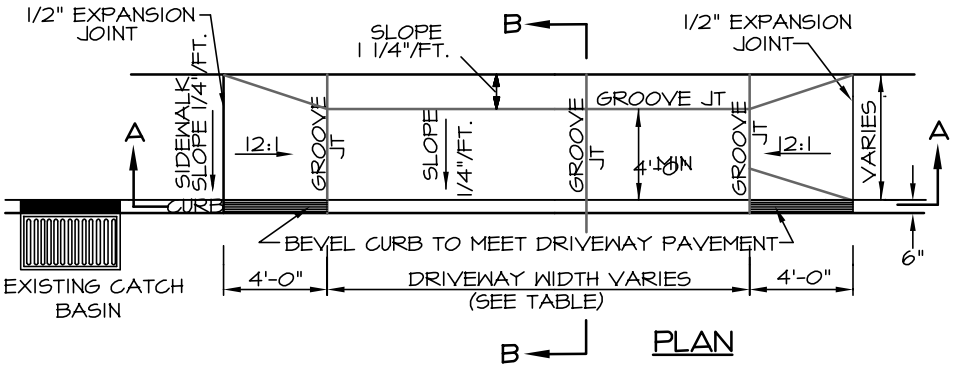
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

COMMERCIAL TYPE II AND RESIDENTIAL TYPE I DROP CURB DRIVEWAY WITH SIDEWALK ABUTTING CURB
(6" X 18" VERTICAL CURB)

STD. NO.	REV.
10.24B	

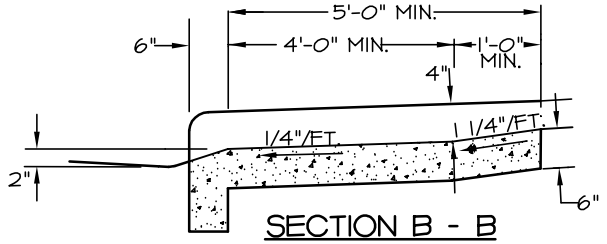


SECTION A - A

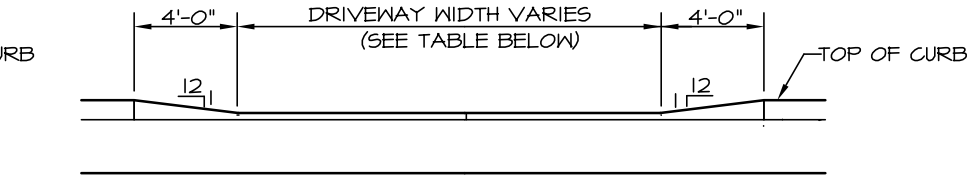


B

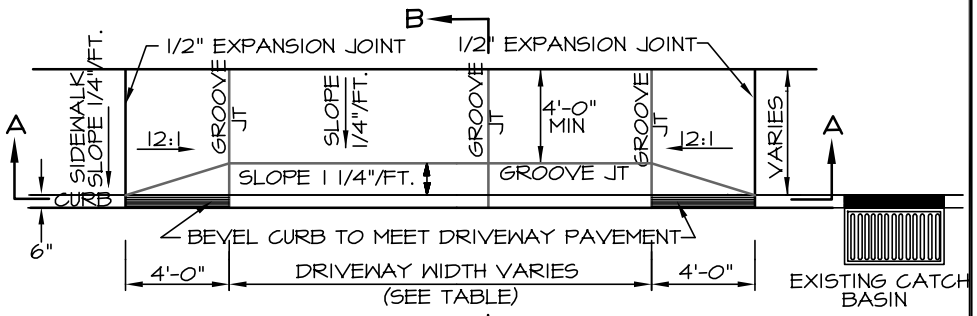
PLAN



SECTION B - B

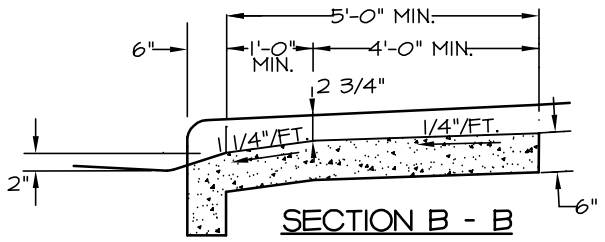


SECTION A - A



B

PLAN



SECTION B - B

DRIVEWAY WIDTH		
TYPE DRIVEWAY	MINIMUM	MAXIMUM
TYPE I-RESIDENTIAL LOCAL/COLLECTOR THOROUGHFARE*	 10' 15'	 30' 30'
ONE-WAY TYPE II COMMERCIAL	20'	30'
TWO-WAY TYPE II COMMERCIAL	26'	50'

* MUST PROVIDE ON-SITE TURNAROUND

NOTES

1. USED AT LOW POINTS IN ROADWAYS WITH 2'-6" CURB AND GUTTER OR 6" X 18" CURB AS DIRECTED BY CITY ENGINEER.
2. SEE STANDARDS 10.24A & 10.24B FOR ADDITIONAL DETAILS.
3. ALL DRIVEWAYS MUST MEET THE CURRENT CITY DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.

NOT TO SCALE

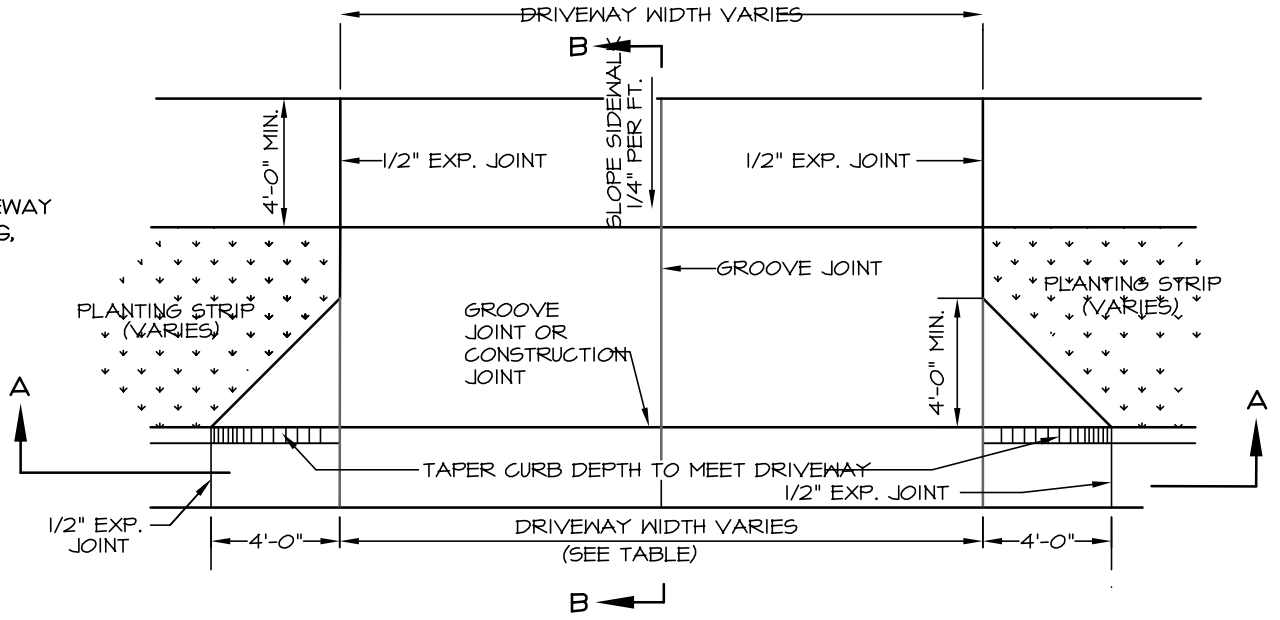
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

COMMERCIAL AND RESIDENTIAL DROP CURB DRIVEWAY WITH SIDEWALK ABUTTING CURB

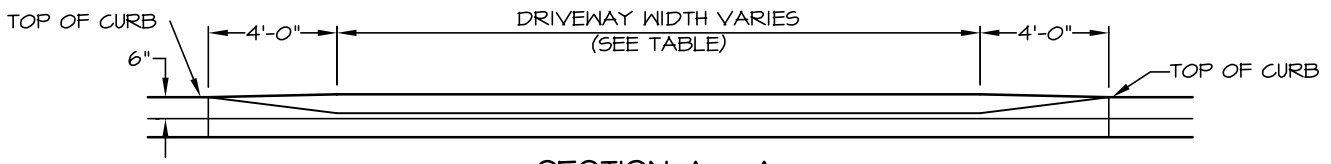
STD. NO.	REV.
10.24C	

NOTES:

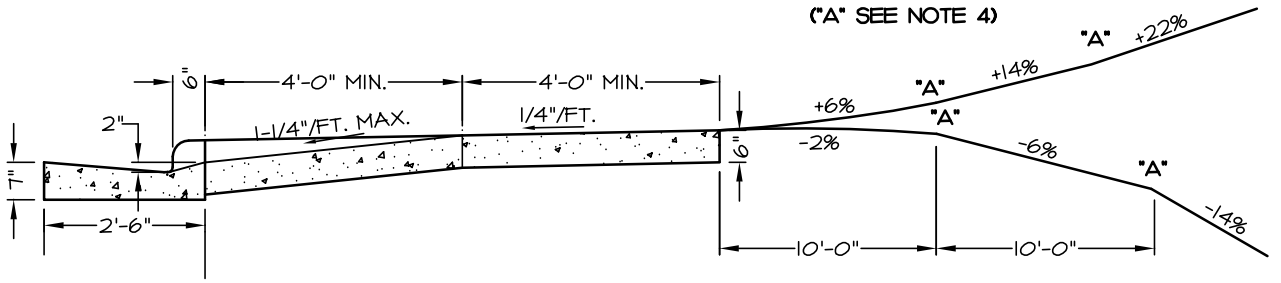
1. ALL CONCRETE TO BE 3600 P.S.I.
2. ALL CURB OR CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.



PLAN VIEW



SECTION A - A



SECTION B - B

NOT TO SCALE

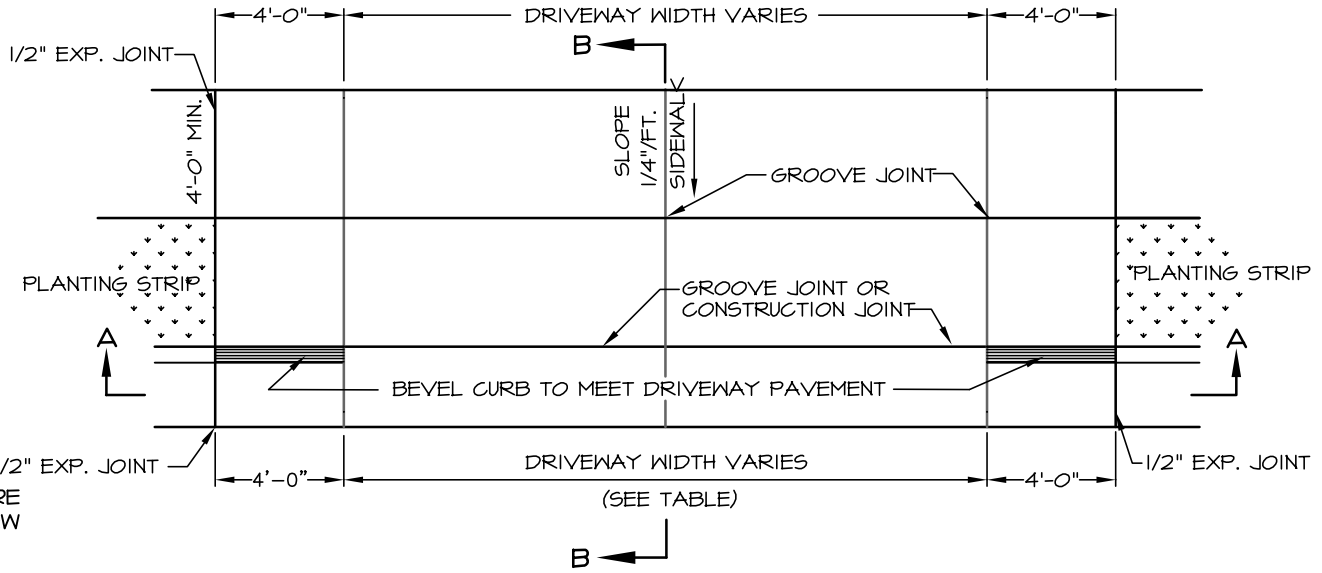
DRIVEWAY WIDTH		
DRIVEWAY TYPE	MINIMUM	MAXIMUM
LOCAL/COLLECTOR	10'	30'
THOROUGHFARE*	15'	30'

* MUST PROVIDE ON-SITE TURNAROUND

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RESIDENTIAL DROP CURB TYPE I DRIVEWAY WITH PLANTING STRIP (2'-6" CURB AND GUTTER)

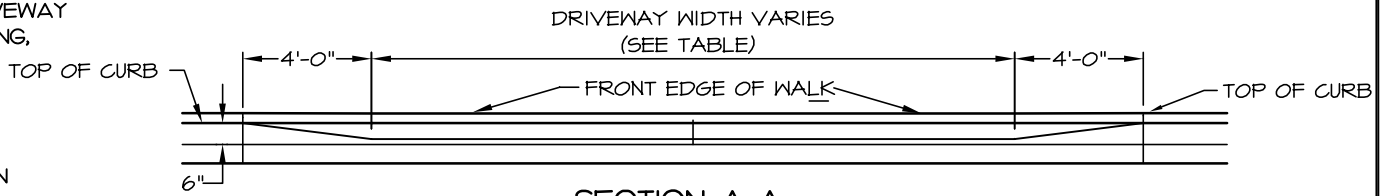
STD. NO.	REV.
10.25A	



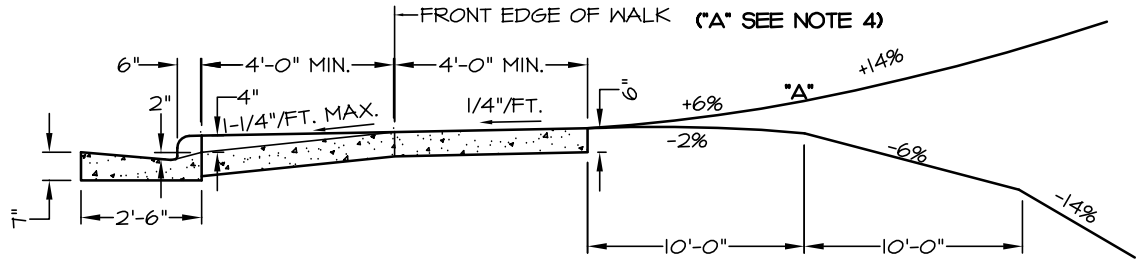
PLAN VIEW

NOTES:

1. ALL CONCRETE TO BE 3600 P.S.I.
2. ALL CURB OR CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.



SECTION A-A



SECTION B-B

NOT TO SCALE

DRIVEWAYS CLASSIFICATION		
TYPE DRIVEWAYS	MINIMUM	MAXIMUM
ONE-WAY TYPE II - COMMERCIAL	20'	30'
TWO-WAY TYPE II - COMMERCIAL	26'	50'*

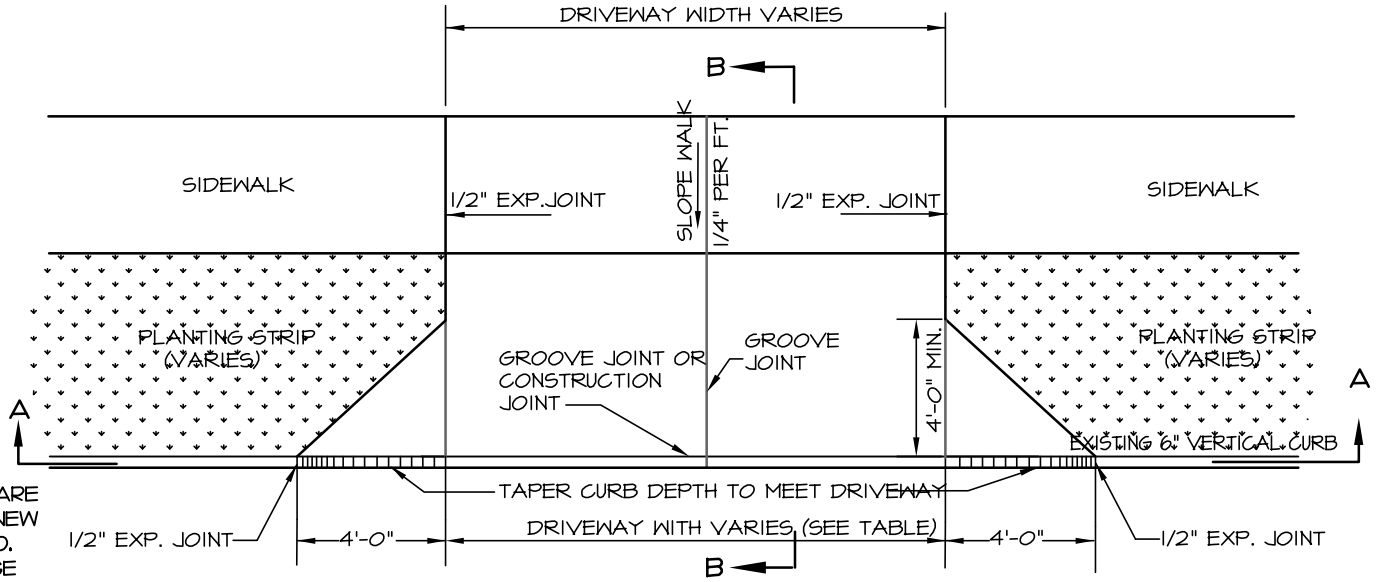
* NEED MORE THAN ONE CONTRACTION JOINT IN CENTER.

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

COMMERCIAL DROP CURB TYPE II DRIVEWAY WITH PLANTING STRIP (2'-6" CURB AND GUTTER)

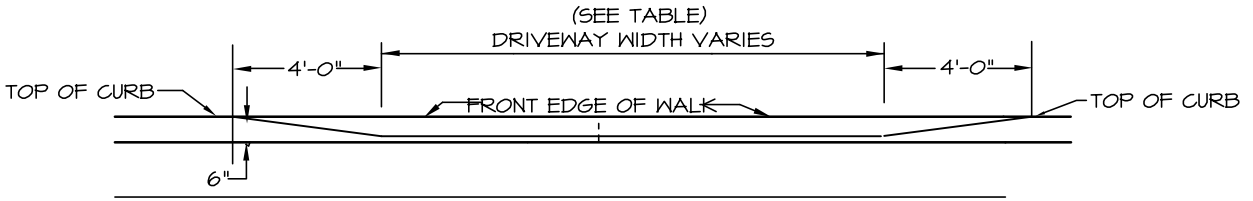
STD. NO.	REV.
10.25B	



PLAN VIEW

NOTES:

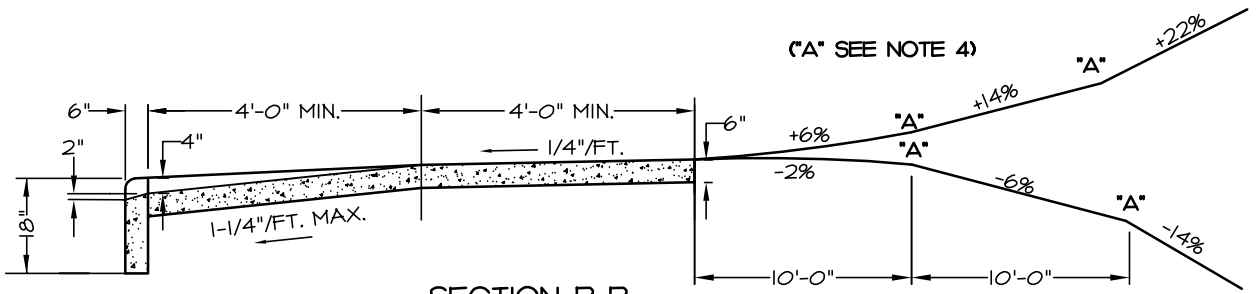
1. ALL CONCRETE TO BE 3600 P.S.I.
2. ALL CURB OR CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.



SECTION A-A (ALONG FLOW LINE)

DRIVEWAY WIDTH		
DRIVEWAY TYPE	MINIMUM	MAXIMUM
LOCAL/COLLECTOR	10'	30'
THOROUGHFARE*	15'	30'

* MUST PROVIDE ON-SITE TURNAROUND



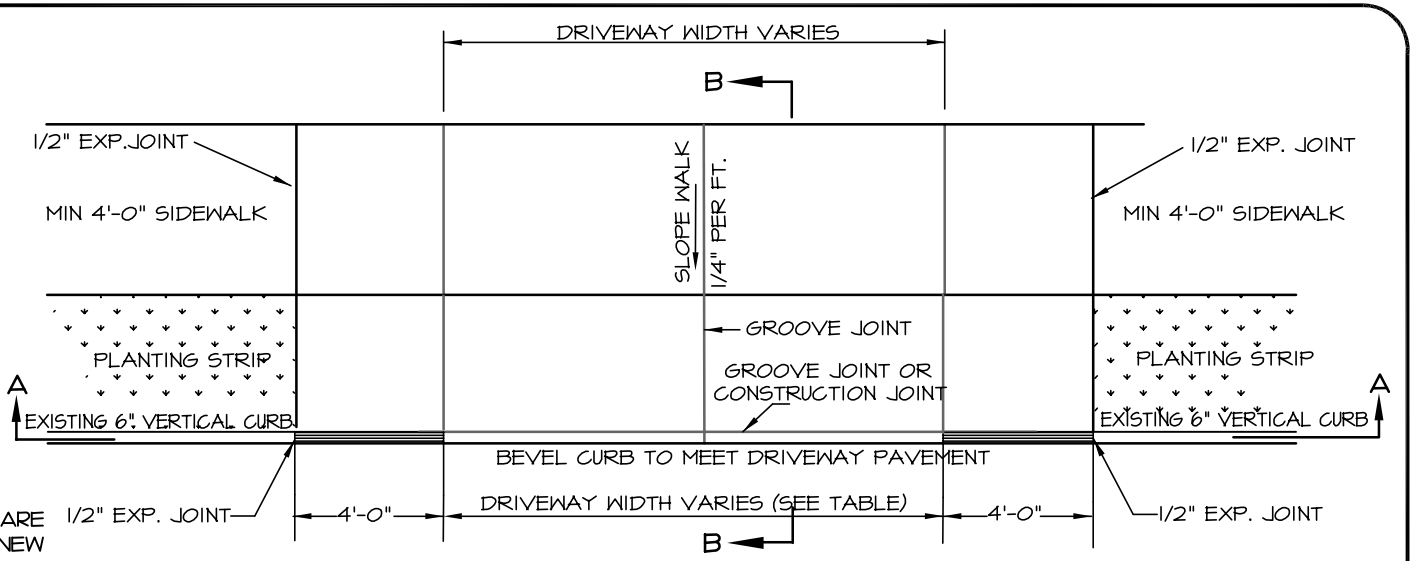
SECTION B-B

NOT TO SCALE

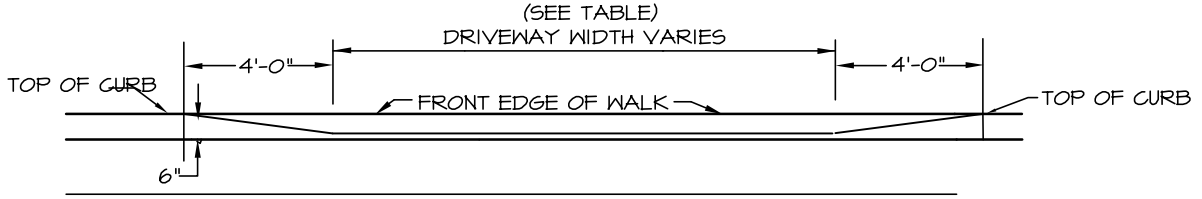
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RESIDENTIAL DROP CURB TYPE I DRIVEWAY WITH PLANTING STRIP (6" X 18" VERTICAL CURB)

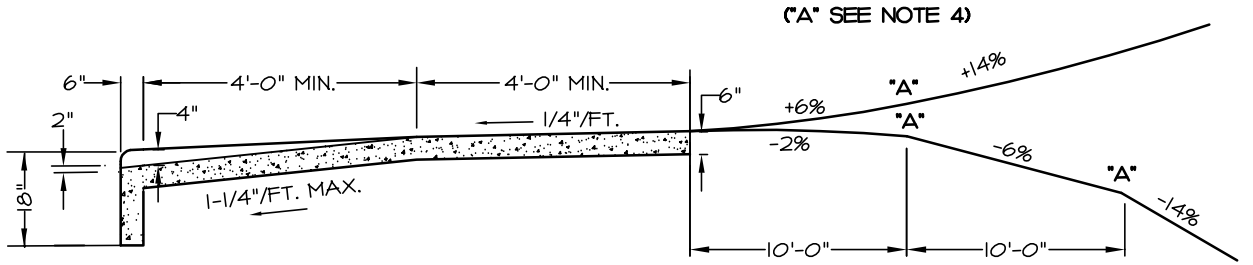
STD. NO.	REV.
10.25C	



PLAN VIEW



SECTION A-A (ALONG FLOW LINE)



SECTION B-B

NOTES:

1. ALL CONCRETE TO BE 3600 P.S.I.
2. ALL CURB OR CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.

DRIVEWAYS CLASSIFICATION		
TYPE DRIVEWAYS	MINIMUM	MAXIMUM
ONE-WAY TYPE II - COMMERCIAL	20'	30'
TWO-WAY TYPE II - COMMERCIAL	26'	50'*

* NEED MORE THAN ONE CONTRACTION JOINT IN CENTER.

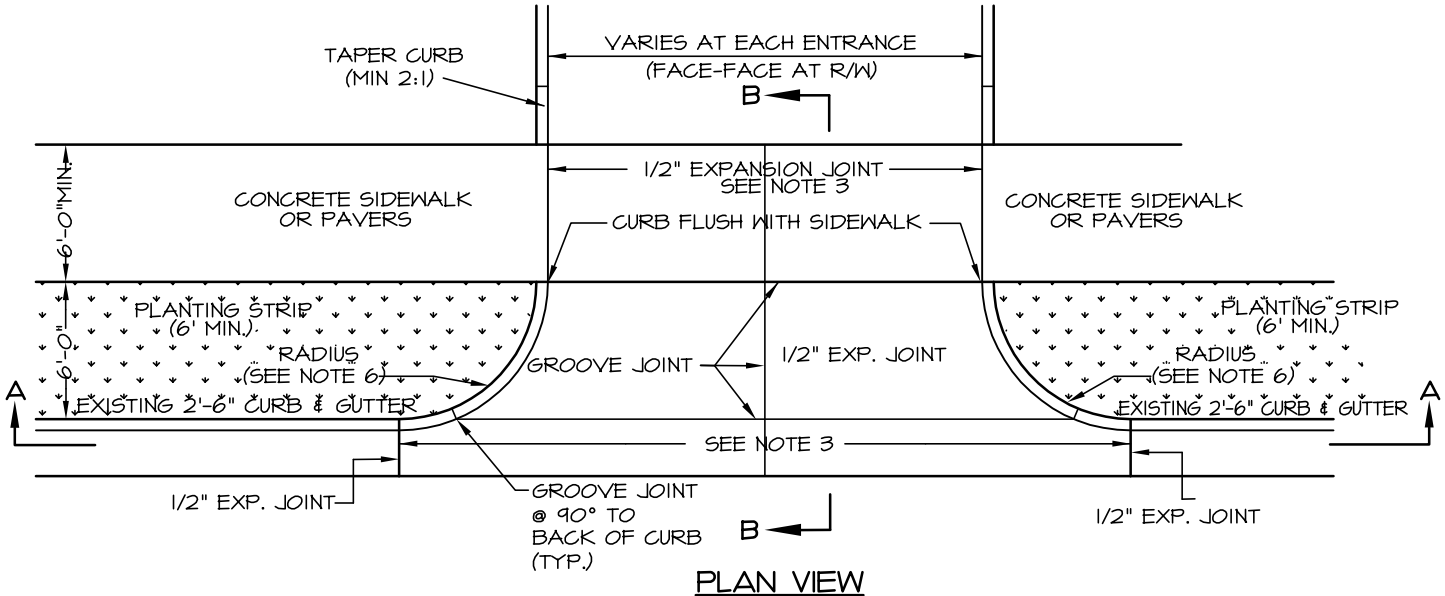
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

COMMERCIAL DROP CURB TYPE II DRIVEWAY WITH PLANTING STRIP
(6" X 18" VERTICAL CURB)

STD. NO.	REV.
10.25D	

DRIVEWAY DIMENSIONS		
OPERATION/RADIUS	MINIMUM	MAXIMUM
ONE-WAY WITH 6-12 FT. RADII	20'	30'
ONE-WAY WITH 13+ FT. RADII	15'	25'
TWO-WAY WITH 6-12 FT. RADII	26'	50'
TWO-WAY WITH 13+ FT. RADII	22'	40'

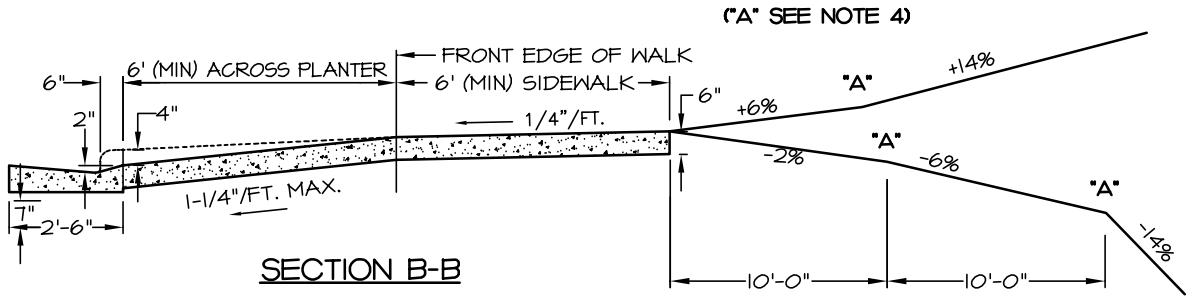


PLAN VIEW

NOTES:

1. ALL CONCRETE TO BE 3600 P.S.I.
2. ALL CURB OR CURB AND GUTTER AND SIDEWALKS ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
5. PRIOR APPROVAL IS REQUIRED BY TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.
6. RADII MUST BE MINIMUM 6 FEET OR THE WIDTH OF THE PLANTING STRIP, WHICHEVER IS GREATER. RADII GREATER THAN THESE MINIMUMS MAY BE REQUIRED BY TOWN ENGINEER ON A CASE-BY-CASE BASIS. FOR RADII GREATER THAN 6 FEET, THE RADII ARE TO CONTINUE AS A BAND AT-GRADE THROUGH THE SIDEWALK.

SECTION A-A (ALONG FLOW LINE)



SECTION B-B

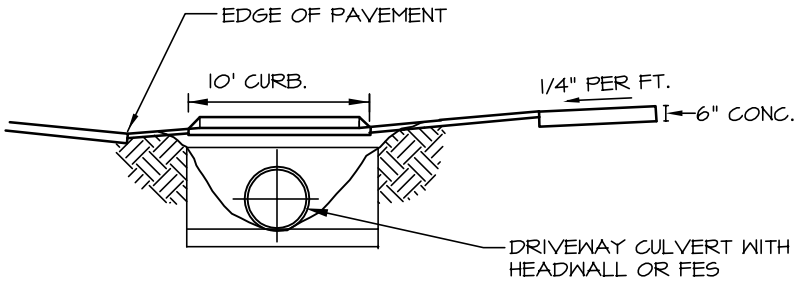
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TYPE II-MODIFIED DRIVEWAY WITH PLANTING STRIP
(2'-6" STANDARD CURB)

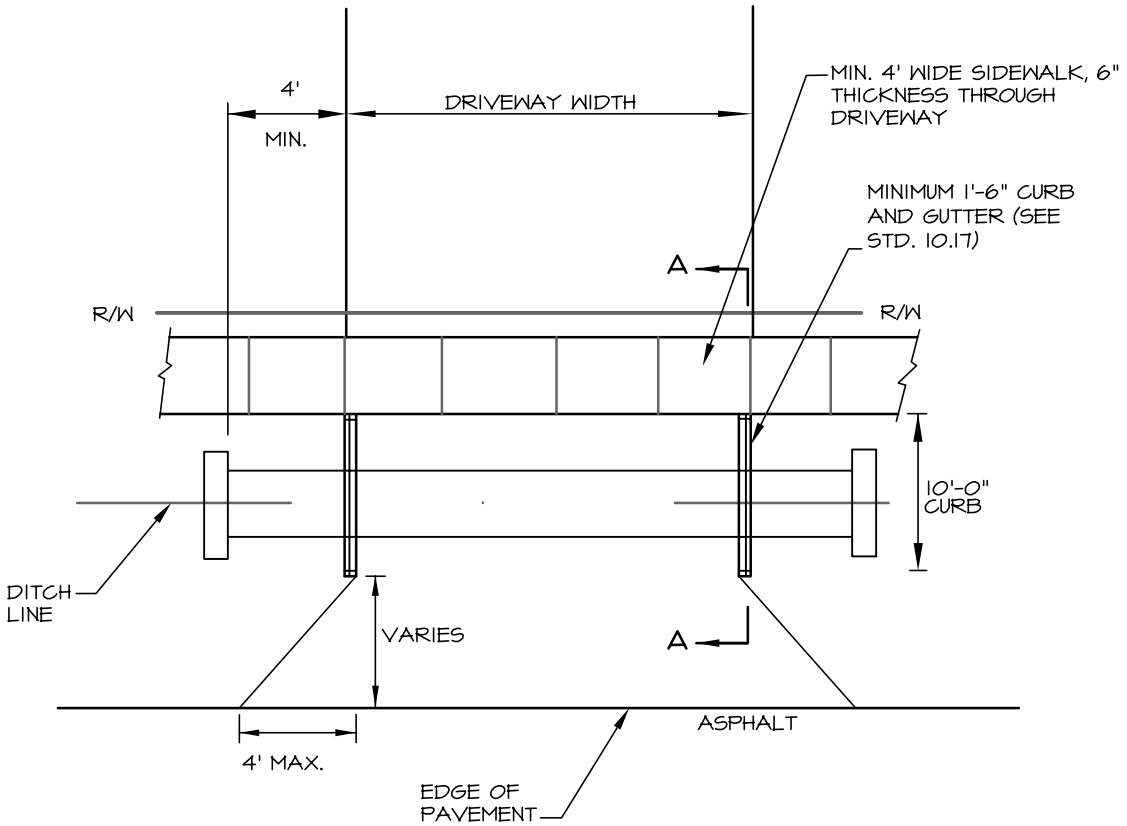
STD. NO.	REV.
10.25E	

DRIVEWAY WIDTH		
DRIVEWAY TYPE	MINIMUM	MAXIMUM
ONE-WAY	20'	30'
TWO-WAY	26'	50'



* NCDOT TO APPROVE ON NCDOT SYSTEM ROAD.

SECTION A-A



PLAN

NOTES:

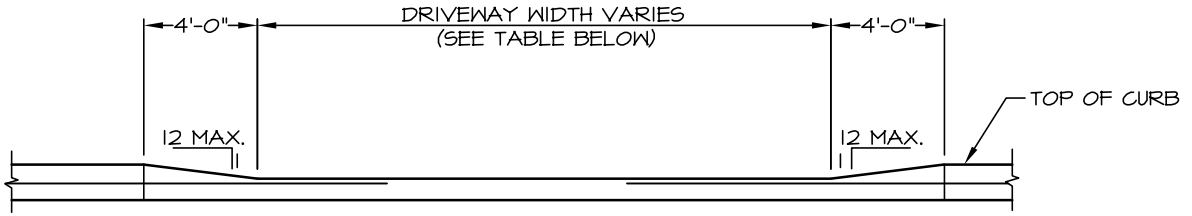
1. TO BE USED ON ROADS WITHOUT CURB AND GUTTER AND WHERE CURB AND GUTTER IS NOT BEING INSTALLED. (MUST MEET BOTH CRITERIA)
2. ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
3. USE OF THIS STANDARD FOR RESIDENTIAL DRIVEWAY CONSTRUCTION AT THE DISCRETION OF THE TOWN ENGINEER ONLY.

NOT TO SCALE

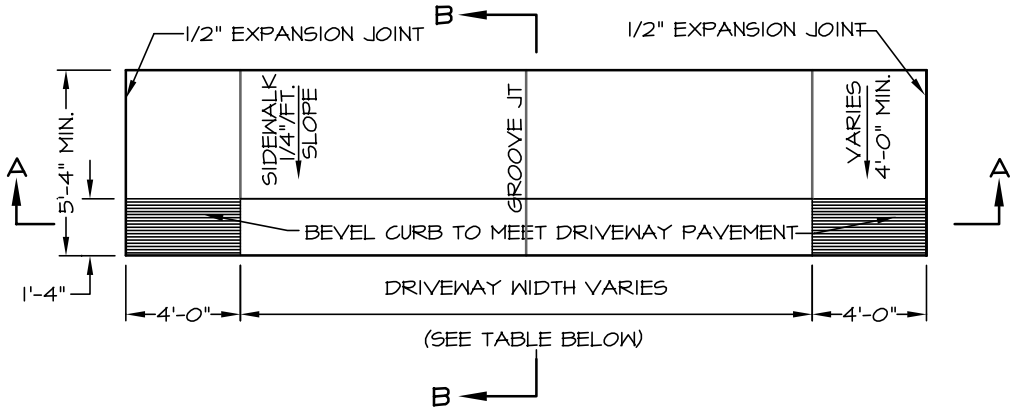
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

COMMERCIAL TYPE IV DRIVEWAY

STD. NO.	REV.
10.25F	



SECTION A-A



PLAN

GENERAL NOTES:

ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.

A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE. SEE STANDARD 10.22.

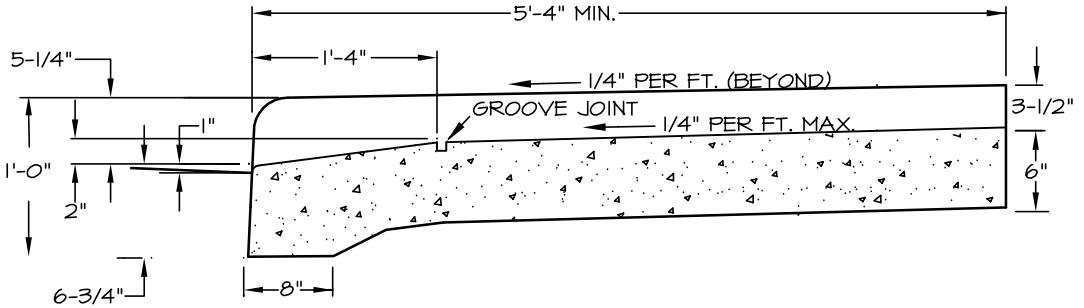
THIS DETAIL TO BE USED ONLY IN CONJUNCTION WITH MONOLITHIC SIDEWALK AS ON STANDARD NO. 10.23

NOTES:

1. ALL DRIVEWAYS MUST MEET THE CURRENT CITY DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCES, AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.

DRIVEWAY WIDTH		
TYPE DRIVEWAY	MINIMUM	MAXIMUM
TYPE E RESIDENTIAL:		
LOCAL/COLLECTOR	10'	30'
THOROUGHFARE*	15'	30'
ONE-WAY TYPE TIT COMMERCIAL	20'	30'
TWO-WAY TYPE TTT COMMERCIAL	26'	50'

* MUST PROVIDE ON-SITE TURNAROUND



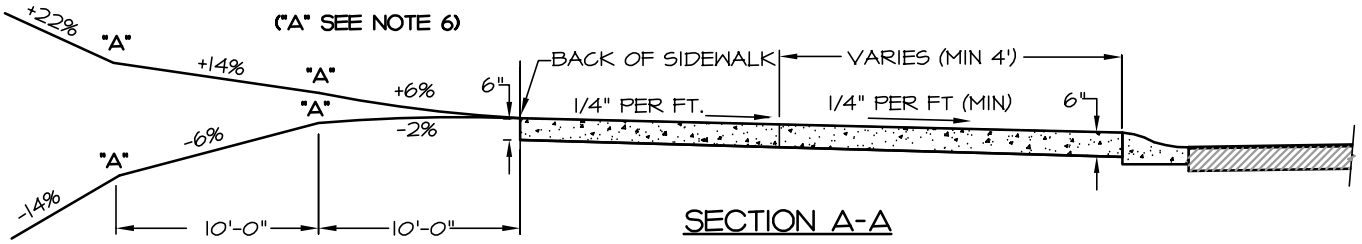
SECTION B-B

NOT TO SCALE

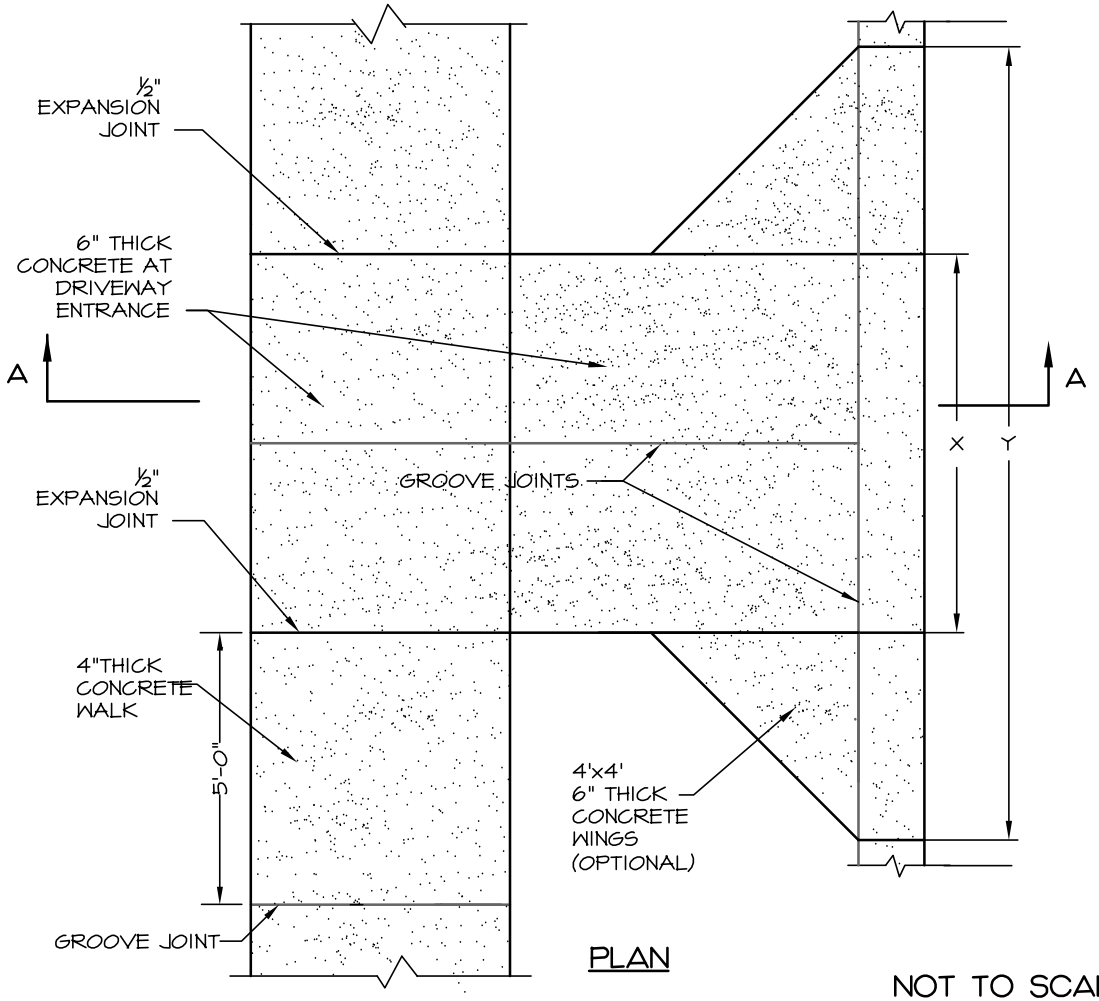
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

DROP CURB DRIVEWAY
MONOLITHIC CONCRETE CURB AND SIDEWALK

STD. NO.	REV.
10.26	



SECTION A-A



PLAN

NOT TO SCALE

NOTES:

1. THE ELEVATION OF THE SIDEWALK SHALL BE NOT LESS THAN SIX INCHES OR MORE THAN EIGHTEEN INCHES ABOVE THE ROADWAY CROWN. THIS ELEVATION DIFFERENTIAL SHALL BE CONSISTENT WITHIN EACH BLOCK.
2. ALL CONCRETE TO BE 3600 PSI STRENGTH.
3. ALL CONSTRUCTION PRACTICES, INCLUDING COMPACTION, CURING, FINISHING, ETC. SHALL BE IN ACCORDANCE WITH THE THESE LAND DEVELOPMENT STANDARDS.
4. PLANTING STRIP SHALL BE GRADED WITH A CROSS SLOPE BETWEEN 1/2 IN. PER FOOT AND 1 1/4 IN. PER FOOT EXCEPT WHERE EXCESSIVE NATURAL GRADES MAKE THIS REQUIREMENT IMPRACTICAL. IN SUCH CASES, THE TOWN ENGINEER MAY AUTHORIZE A SUITABLE GRADE
5. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS, INCLUDING BUT NOT LIMITED TO SPACING, SIGHT DISTANCE, AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
6. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).

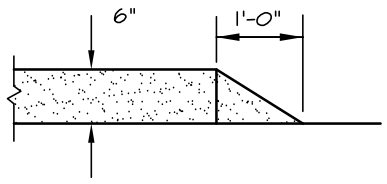
DRIVEWAY WIDTH		
TYPE I-RESIDENTIAL:	X	Y
LOCAL/COLLECTOR	10' MIN.	30' MAX. **
THOROUGHFARE *	15' MIN.	30' MAX. **

* MUST PROVIDE ON-SITE TURNAROUND
** MAXIMUM WIDTH INCLUDES OPTIONAL WINGS

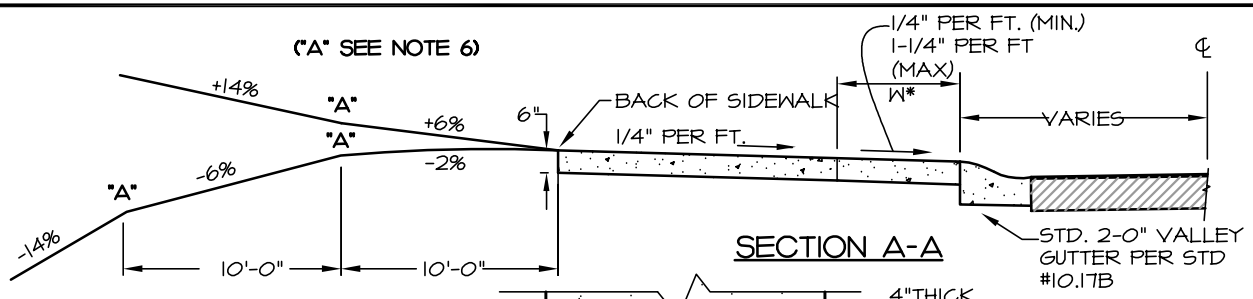
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RESIDENTIAL DRIVEWAY (TYPE I) FOR 2'-0" VALLEY GUTTER

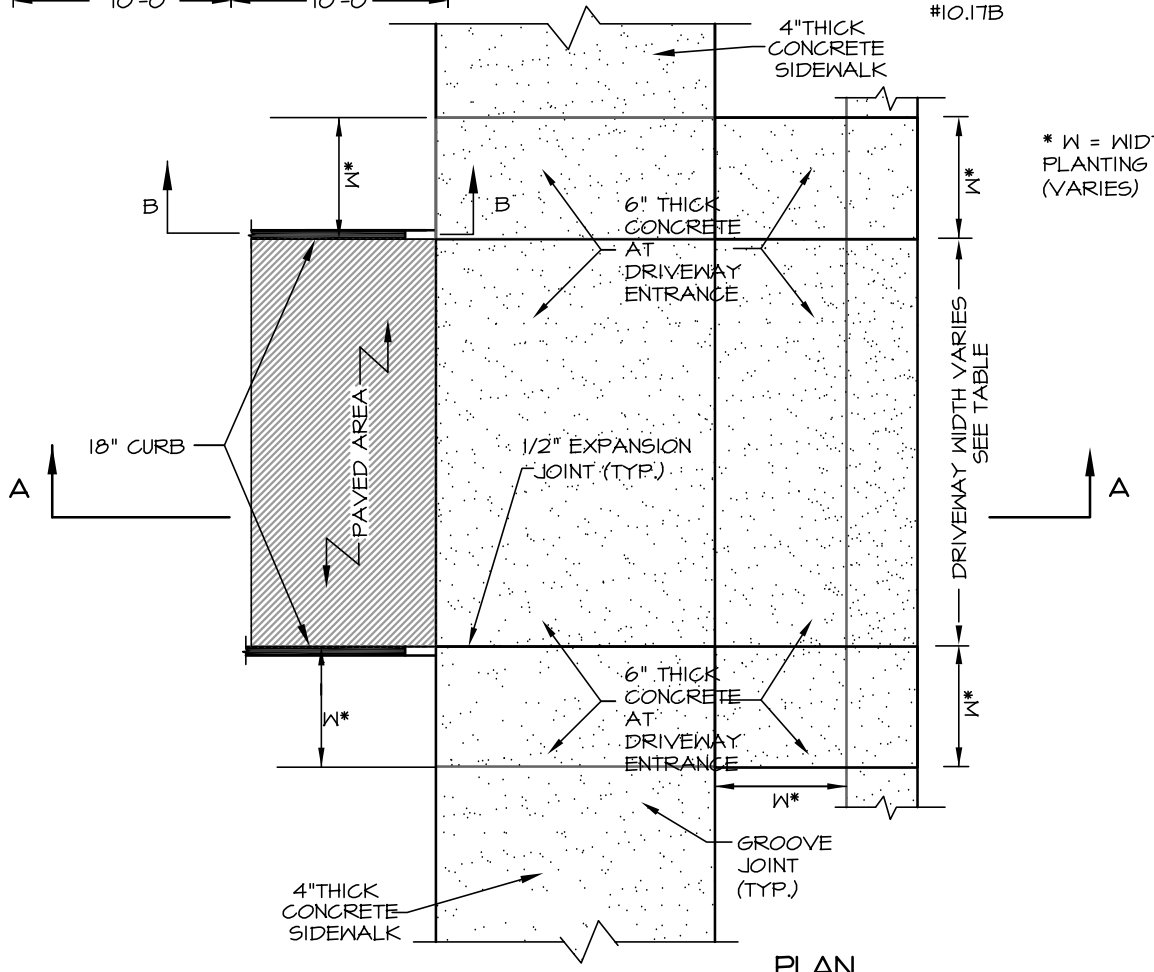
STD. NO.	REV.
10.27A	



SECTION B-B



SECTION A-A



PLAN

* W = WIDTH OF PLANTING STRIP (VARIES)

NOTES

1. THE ELEVATION OF THE SIDEWALK SHALL BE NOT LESS THAN SIX INCHES OR MORE THAN EIGHTEEN INCHES ABOVE THE ROADWAY CROWN. THIS ELEVATION DIFFERENTIAL SHALL BE CONSISTENT WITHIN EACH BLOCK.
2. ALL CONCRETE TO BE 3600 PSI STRENGTH.
3. ALL CONSTRUCTION PRACTICES, INCLUDING COMPACTION, CURING, FINISHING, ETC. SHALL BE IN ACCORDANCE WITH THESE LAND DEVELOPMENT STANDARDS.
4. PLANTING STRIP SHALL BE GRADED WITH A CROSS SLOPE BETWEEN 1/2 IN. PER FOOT AND 1 1/4 IN. PER FOOT EXCEPT WHERE EXCESSIVE NATURAL GRADES MAKE THIS REQUIREMENT IMPRACTICAL. IN SUCH CASES, THE CITY ENGINEER MAY AUTHORIZE A SUITABLE GRADE
5. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS, INCLUDING BUT NOT LIMITED TO SPACING, SIGHT DISTANCE, AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
6. "A" BREAKOVER SHALL BE 8% OR LESS (A=ALGEBRAIC DIFFERENCE).
7. PRIOR APPROVAL IS REQUIRED BY THE TOWN ENGINEER ON GRADES EXCEEDING WHAT ARE SHOWN.

DRIVEWAY WIDTH		
TYPE DRIVEWAY	MINIMUM	MAXIMUM
ONE-WAY TYPE II COMMERCIAL	20'	30'
TWO-WAY TYPE II COMMERCIAL	26'	50'

* MUST PROVIDE ON-SITE TURNAROUND

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

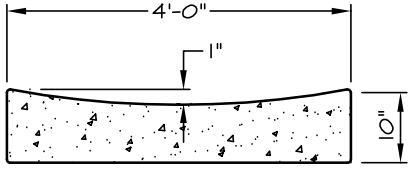
COMMERCIAL TYPE II DRIVEWAY FOR 2'-0" VALLEY GUTTER

STD. NO.	REV.
10.27B	

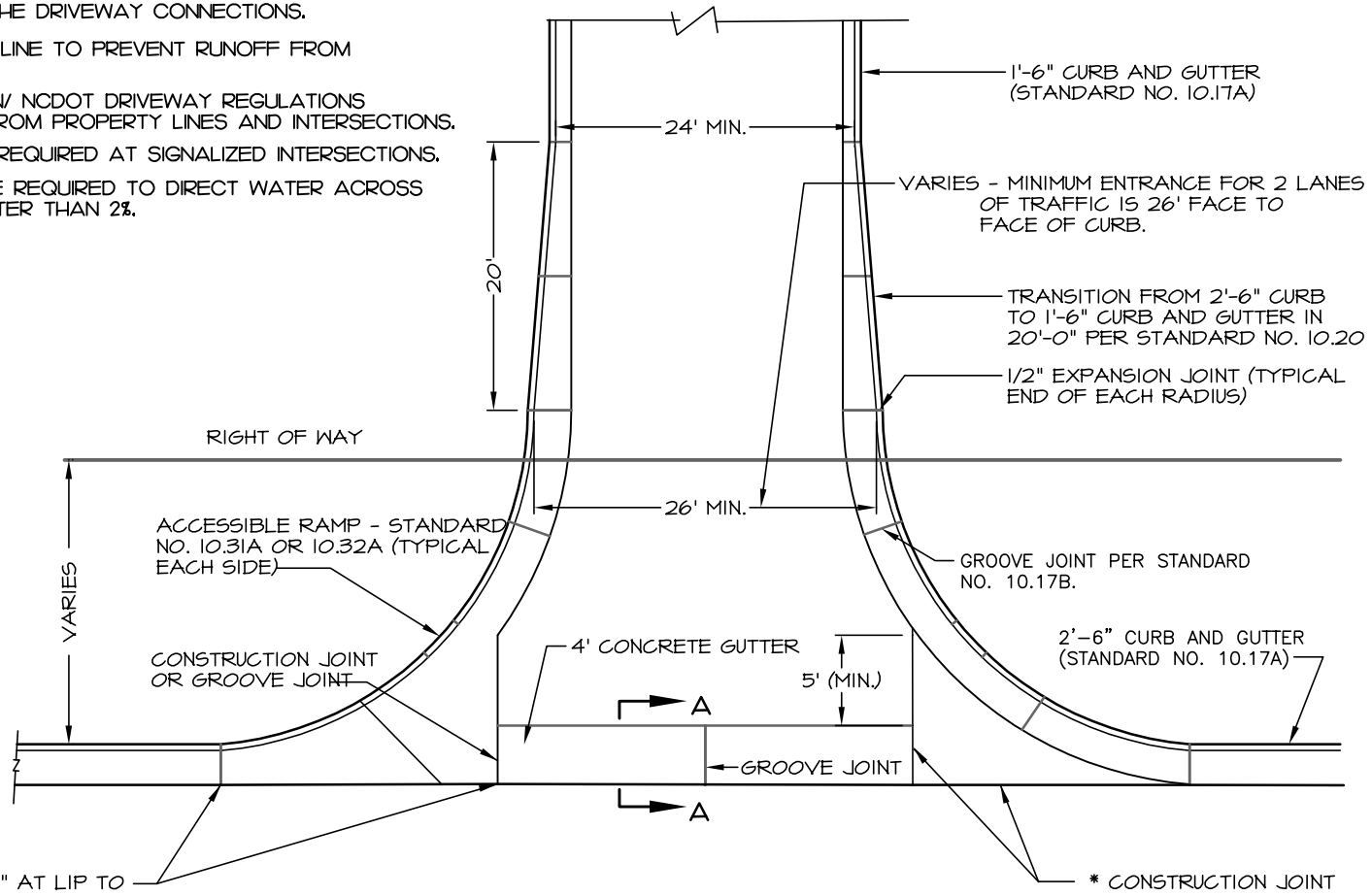
NOTES:

1. WHERE A TYPE III DRIVEWAY IS APPROVED BY THE TOWN ENGINEER THAT CONNECTS TO AN EXISTING SIGNALIZED INTERSECTION, OR AT A LOCATION WHERE A TRAFFIC SIGNAL INSTALLATION IS PROPOSED BY BASED ON A TRAFFIC IMPACT/SIGNAL WARRANT STUDY, A FULL DEPTH ASPHALT PAVEMENT (2-1/2" S-9.5 B/C AND 6" B-25.0 B/C) IS REQUIRED. THIS PAVEMENT DESIGN IS REQUIRED IN THE DRIVEWAY EASEMENT (100-FOOT MINIMUM) TO MAINTAIN DETECTOR LOOPS AND PAVEMENT MARKINGS.
2. A CONCRETE GUTTER IS TO BE USED EXCEPT AT EXISTING OR PROPOSED TRAFFIC SIGNAL LOCATIONS. AT THESE LOCATIONS ADDITIONAL DRAINAGE REQUIREMENTS WILL BE NECESSARY TO ELIMINATE THE NEED FOR GUTTER ACROSS THE DRIVEWAY CONNECTIONS.
3. THE DRIVEWAY MUST RISE 6" FROM THE GUTTER LINE TO PREVENT RUNOFF FROM ENTERING DRIVEWAY.
4. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN/ NCDOT DRIVEWAY REGULATIONS FOR SPACING, SIGHT DISTANCE, AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
5. TWO (2) ACCESSIBLE RAMPS PER CURB RETURN REQUIRED AT SIGNALIZED INTERSECTIONS.

* FOUR (4) FOOT GUTTER AND WINGS WILL NOT BE REQUIRED TO DIRECT WATER ACROSS DRIVE IF THE DRIVEWAY GUTTER SLOPE IS GREATER THAN 2%.



SECTION A-A



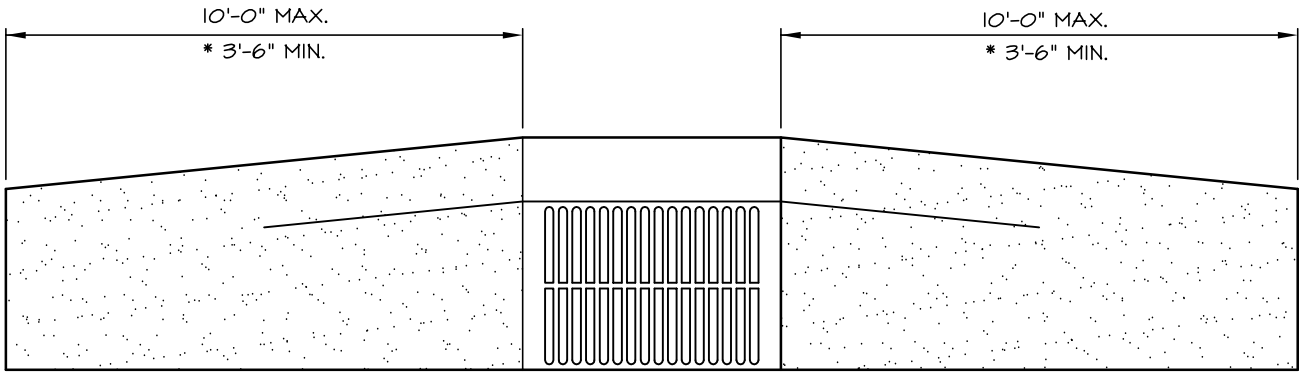
PLAN

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TYPE III DRIVEWAY ENTRANCE

STD. NO.	REV.
10.28	



PLAN

NOTE:

TRANSITION FROM 2'-6" STANDARD CURB TO VALLEY CURB AT A DRAINAGE INLET ONLY.

*SEE STANDARD 10.19 FOR CROSS SECTION GEOMETRY.

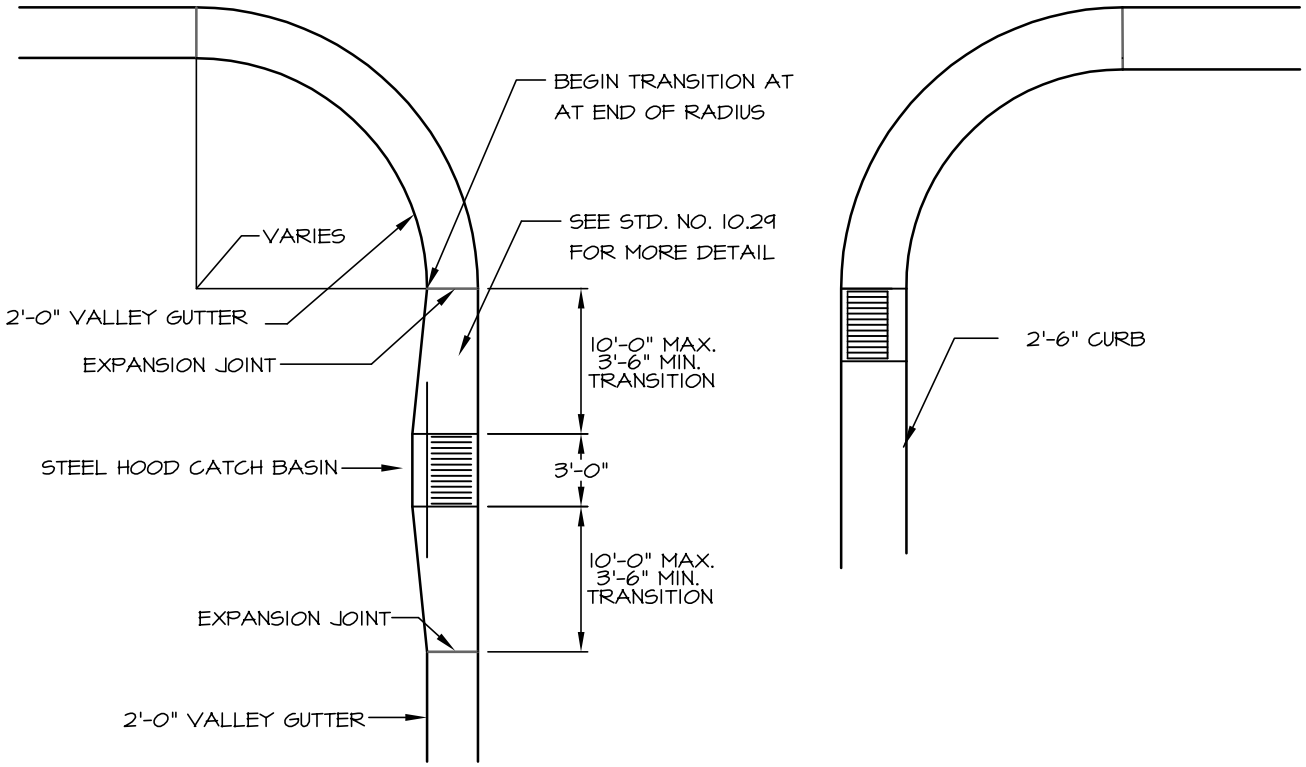
NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

CATCH BASIN FRAME IN VALLEY GUTTER

STD. NO.	REV.
10.29	



NOTE:

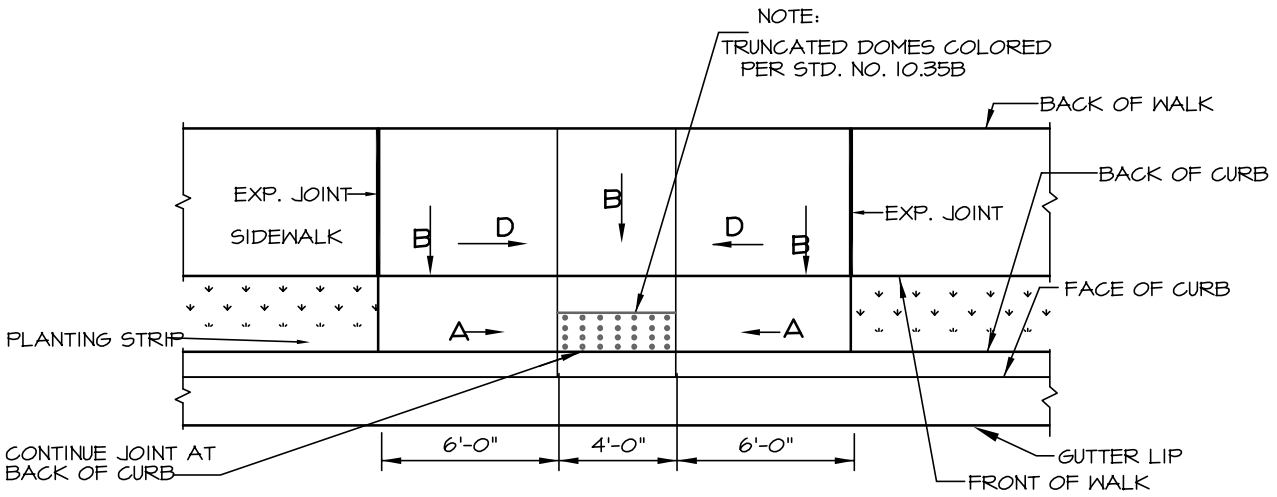
1. WHERE 2'-6" CURB AND GUTTER IS USED, CATCH BASINS MAY BE LOCATED AT END OF RADIUS.
2. RADIUS AT INTERSECTION MAY VARY.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

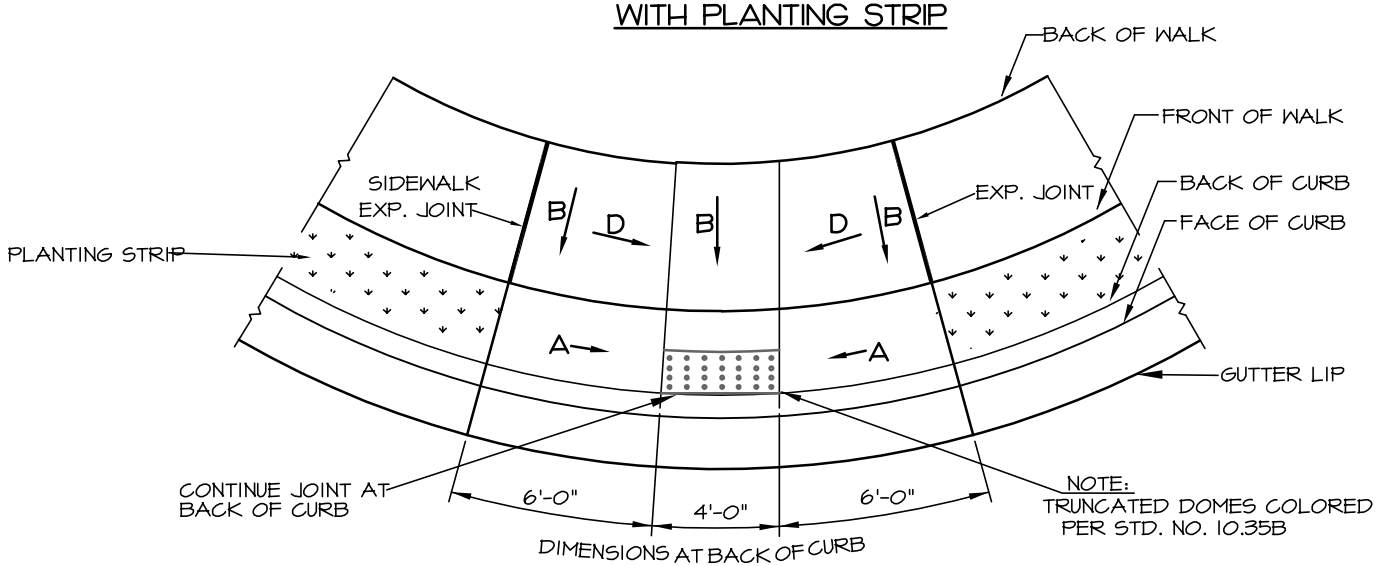
CATCH BASIN PLACEMENT AT INTERSECTIONS

STD. NO.	REV.
10.30	



PLAN VIEW-PARALLEL RAMP

WITH PLANTING STRIP



SLOPE "A" 12:1
SLOPE "B" 1/4"/FT
SLOPE "D" 3/8"/FT

PLAN VIEW-DIAGONAL RAMP WITH PLANTING STRIP

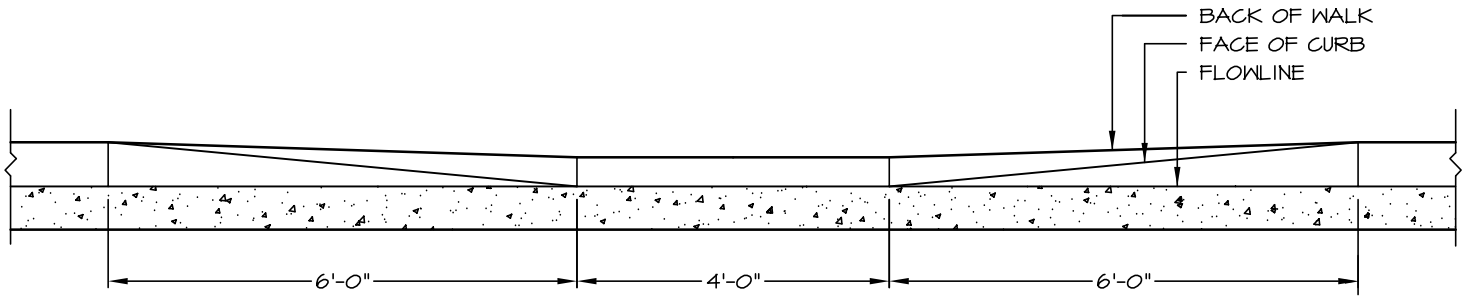
NOT TO SCALE

TOWN OF STALLINGS

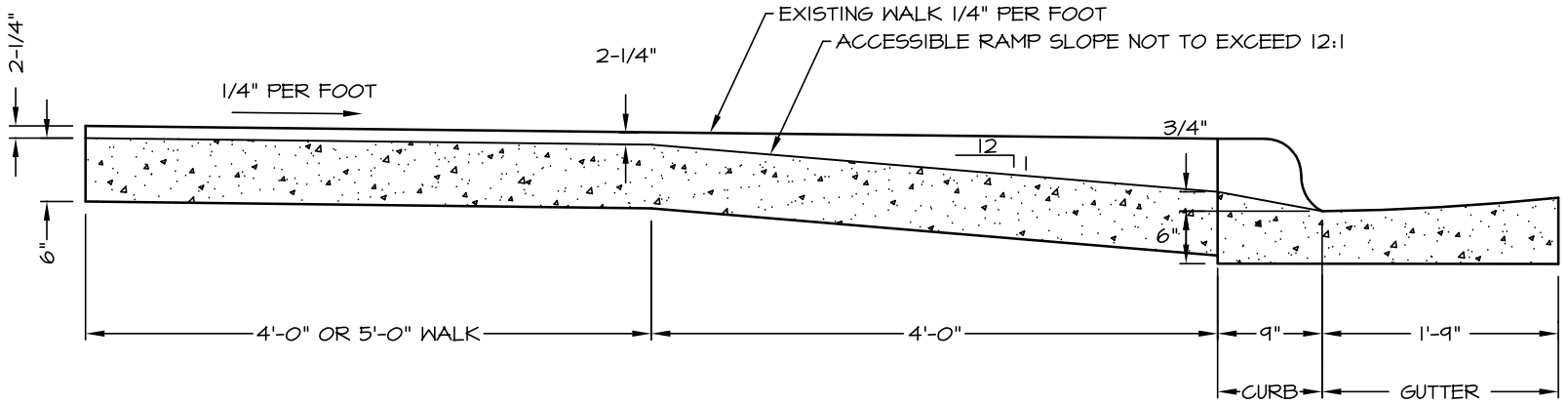
LAND DEVELOPMENT STANDARDS

ACCESSIBLE RAMP STANDARD WITH PLANTING STRIP 2'-6" CURB AND GUTTER

STD. NO.	REV.
10.31A	



ELEVATION



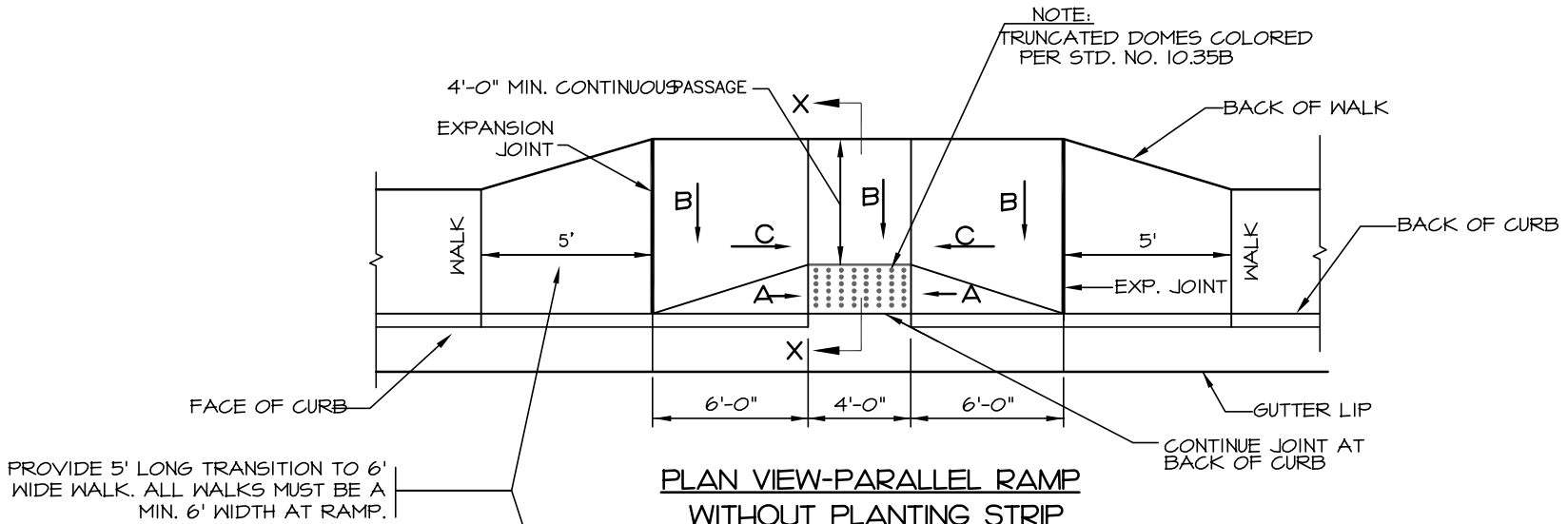
TYPICAL RAMP ℄ SECTION

NOT TO SCALE

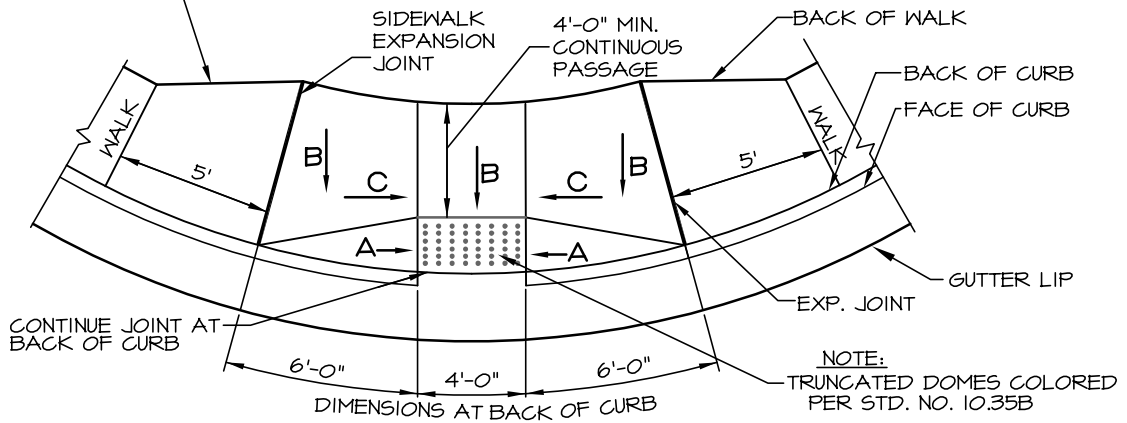
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE RAMP SECTIONS WITH PLANTING STRIP 2-6" CURB AND GUTTER

STD. NO.	REV.
10.31B	



PLAN VIEW-PARALLEL RAMP
WITHOUT PLANTING STRIP



PLAN VIEW-DIAGONAL RAMP WITHOUT PLANTING STRIP

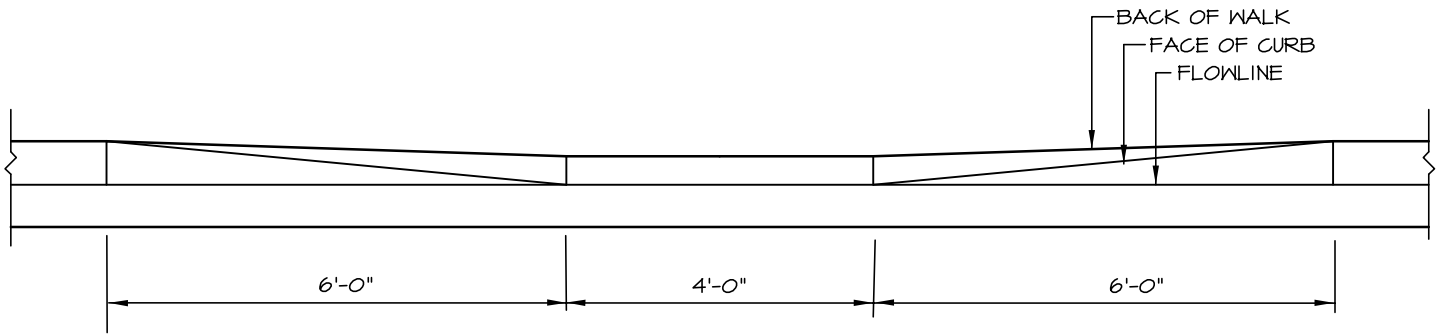
SLOPE "A" 12:1
SLOPE "B" 1/4"/FT
SLOPE "C" 5/8"/FT

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

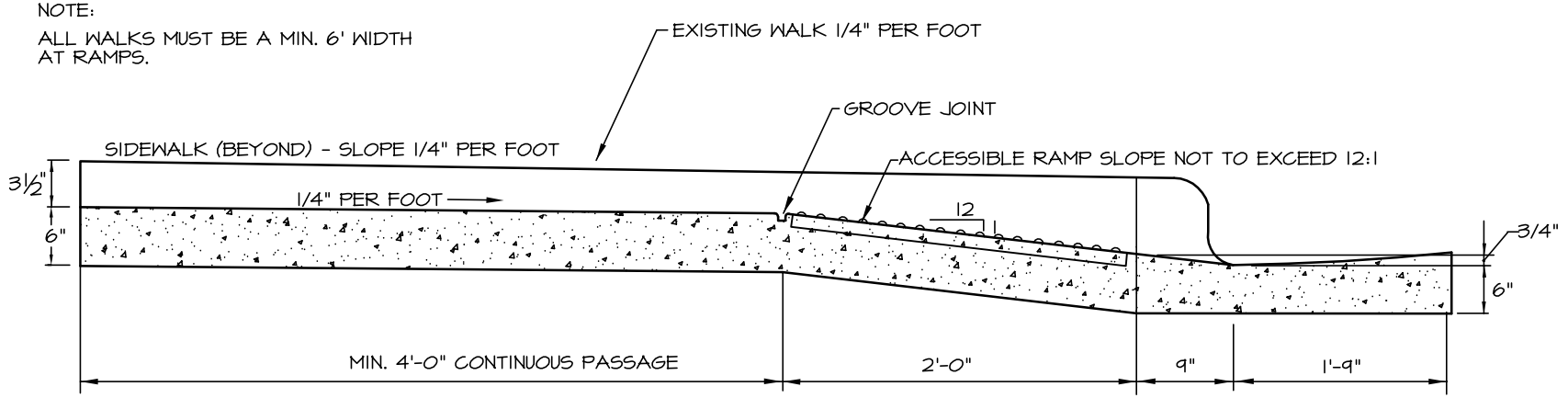
ACCESSIBLE RAMP STANDARD WITHOUT PLANTING STRIP 2'-6" CURB AND GUTTER

STD. NO.	REV.
10.32A	



SECTION THROUGH FLOWLINE

NOTE:
ALL WALKS MUST BE A MIN. 6' WIDTH AT RAMPS.



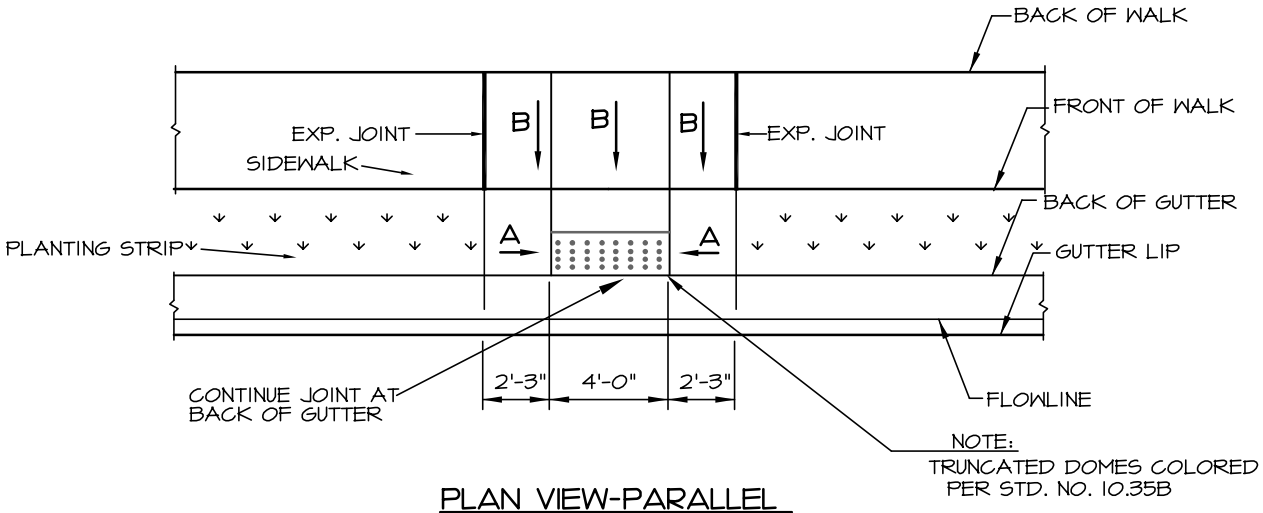
TYPICAL RAMP ℄ SECTION X-X

NOT TO SCALE

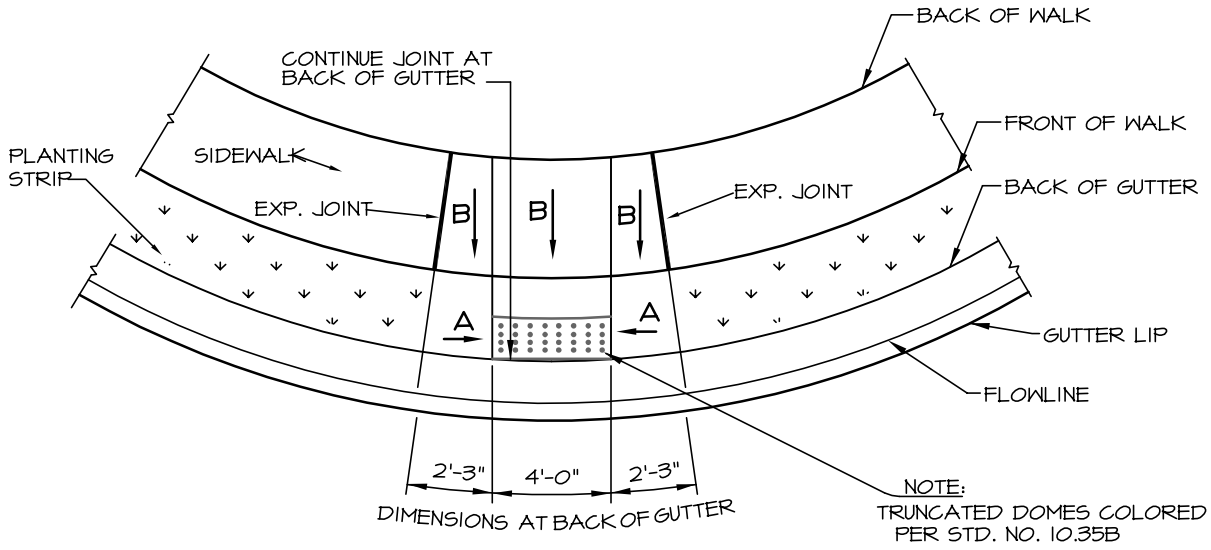
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE RAMP STANDARD WITHOUT PLANTING STRIP 2'-6" CURB AND GUTTER

STD. NO.	REV.
10.32B	



PLAN VIEW-PARALLEL
RAMP WITH PLANTING STRIP



PLAN VIEW-DIAGONAL RAMP
WITH PLANTING STRIP

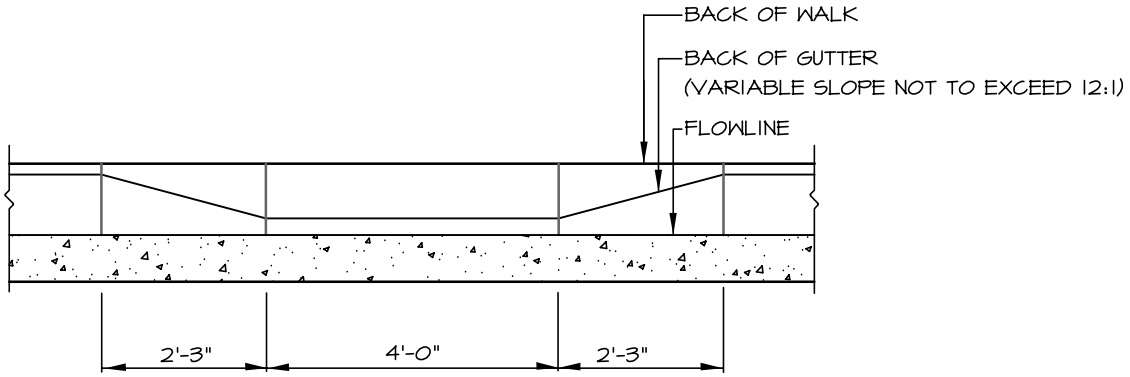
SLOPE "A" 12:1
SLOPE "B" 1/4"/FT

NOT TO SCALE

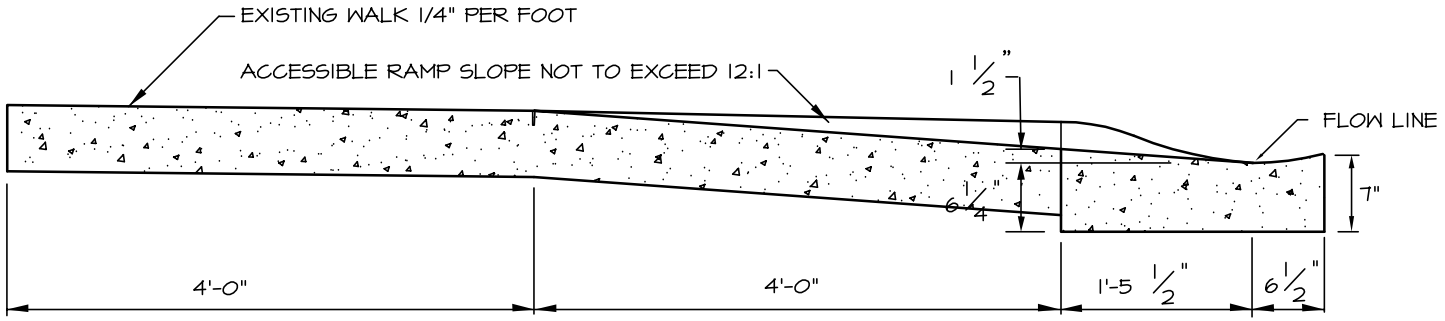
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE RAMP STANDARD
2'-0" VALLEY GUTTER

STD. NO.	REV.
10.33A	



SECTION THROUGH FLOWLINE



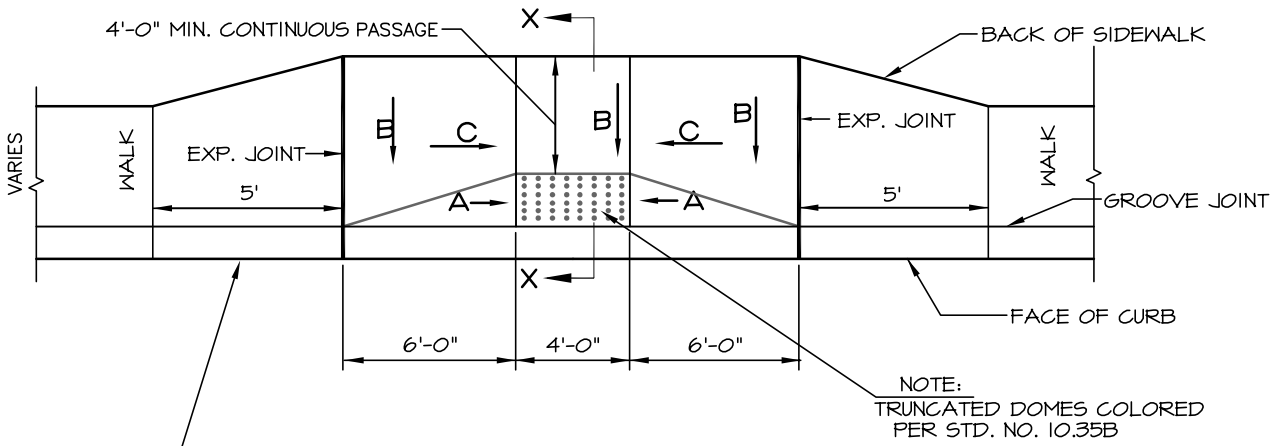
TYPICAL RAMP ℄ SECTION

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE RAMP SECTIONS
2'-0" VALLEY GUTTER

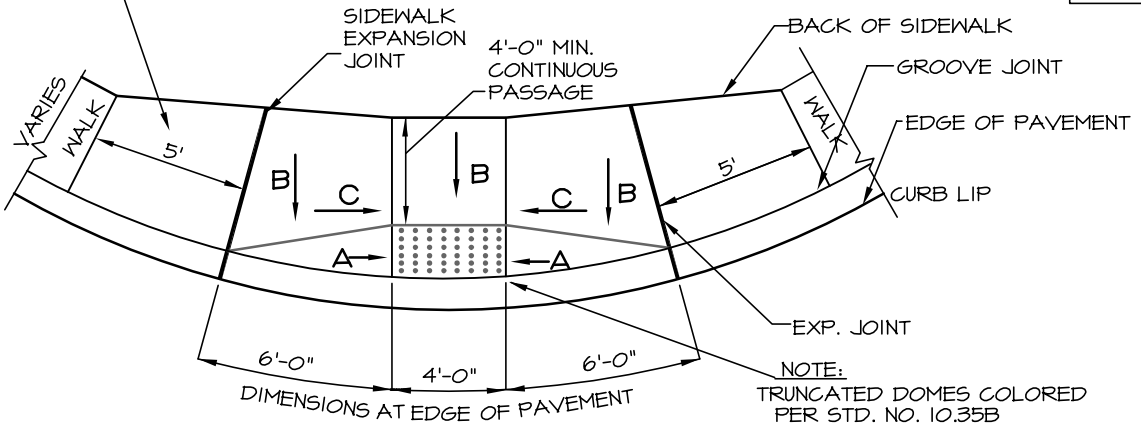
STD. NO.	REV.
10.33B	



PLAN VIEW-PARALLEL RAMP

PROVIDE 5' LONG TRANSITION TO 6' WIDE WALK. ALL WALKS MUST BE A MIN. 6' WIDTH AT RAMP.

SLOPE "A"	12:1
SLOPE "B"	1/4"/FT
SLOPE "C"	1/2"/FT



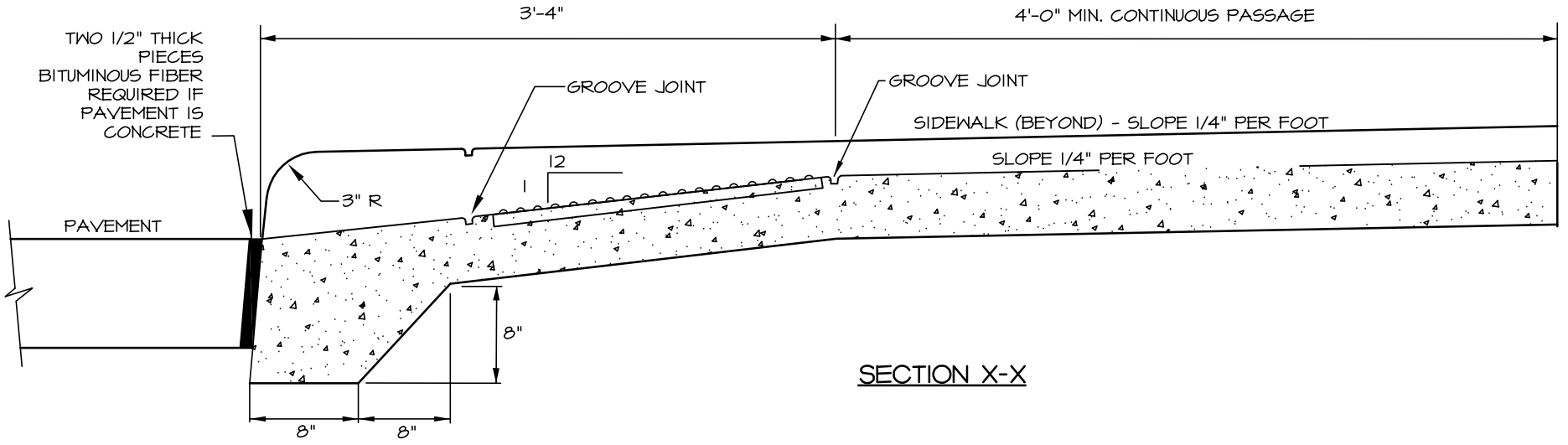
PLAN VIEW-DIAGONAL RAMP

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE RAMP STANDARD MONOLITHIC CURB AND SIDEWALK

STD. NO.	REV.
10.34A	



SECTION X-X

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

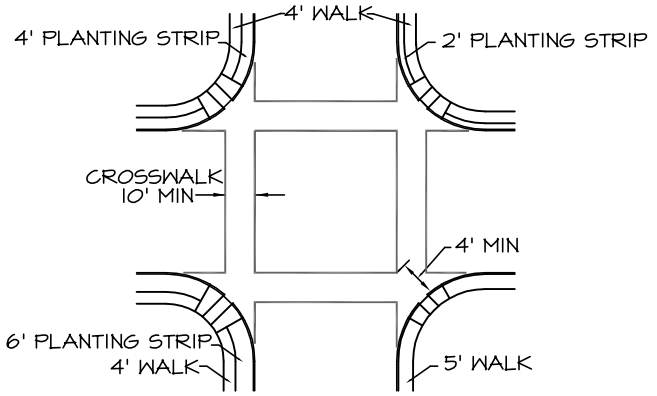
ACCESSIBLE RAMP SECTIONS
MONOLITHIC CURB AND SIDEWALK

STD. NO.	REV.
10.34B	

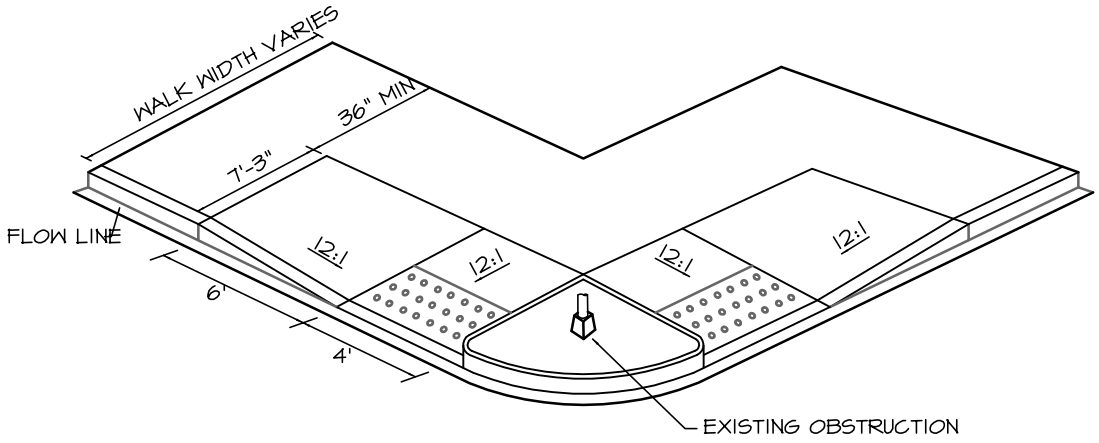
NOTES:

1. RAMP AND WING SLOPES SHALL NOT BE STEEPER THAN 12:1.
2. GUTTER FLOW LINE AND PLAN PROFILE SHALL BE MAINTAINED THROUGH THE RAMP AREA.
3. THE SURFACE OF THE RAMP SHALL BE FLUSH WITH THE FLOWLINE OF THE CURB AND GUTTER.
4. THE RAMP OPENING (AT THE FULLY DEPRESSED CURB) SHALL BE LOCATED WITHIN THE PARALLEL BOUNDARIES OF THE CROSSWALK MARKINGS. THE RAMP CENTERLINE SHALL BE LOCATED AT THE CORNER RADIUS CENTERLINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DIAGONAL CURB RAMPS SHALL HAVE A SEGMENT OF STRAIGHT CURB AT LEAST 24 INCHES LONG LOCATED ON EACH SIDE OF THE WING SLOPE AND WITHIN THE CROSSWALK MARKINGS.
5. THE WING AND RAMP SURFACES SHALL BE 3600 PSI CONCRETE WITH A SIDEWALK FINISH IN ACCORDANCE WITH CURRENT EDITION NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
6. DRAINAGE STRUCTURES, MAST ARMS, LIGHT POLES AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN LINE WITH RAMPS. LOCATION OF THE RAMP SHALL TAKE PRECEDENCE OVER LOCATION OF OBSTRUCTIONS EXCEPT WHERE EXISTING OBSTRUCTIONS ARE BEING UTILIZED IN THE NEW CONSTRUCTION.
7. AT ALL LOCATIONS, NOT LESS THAN 2 FEET OF FULL HEIGHT CURB SHALL BE PLACED BETWEEN THE RAMPS.
8. SEE STANDARD DRAWING 10.35B FOR DETECTABLE WARNING INSTALLATION.

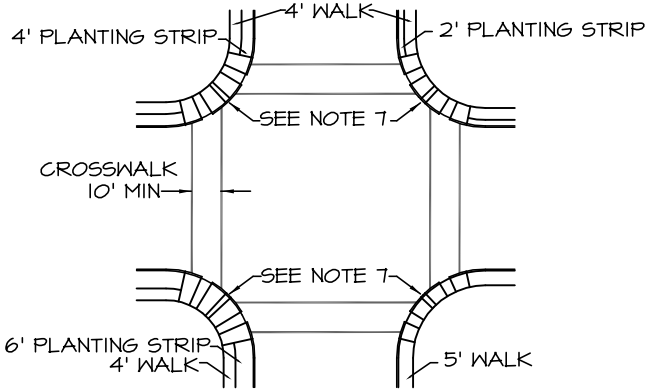
ROADWAY PLAN SYMBOL
(ACC)
FOR PROPOSED ACCESSIBLE RAMP



TYPICAL LOCATION OF ACCESSIBLE RAMPS AND PEDESTRIAN CROSSWALKS ON SUBDIVISION STREETS



PLACEMENT FOR OBSTRUCTED CORNER RADIUS OR CORNER RADIUS LESS THAN TEN FEET



TYPICAL LOCATION OF ACCESSIBLE RAMPS AND PEDESTRIAN CROSSWALKS ON THOROUGHFARES/SIGNALIZED INTERSECTIONS

SEE NCDOT STANDARD DRAWINGS

NOT TO SCALE

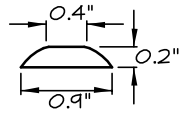
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

STANDARD PLACEMENT OF ACCESSIBLE RAMP AND GENERAL NOTES

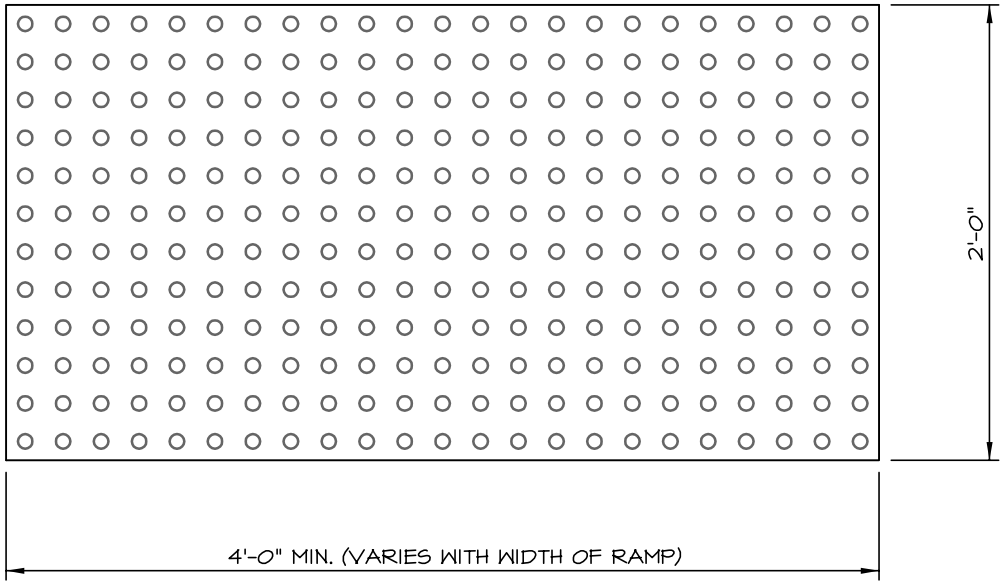
STD. NO.	REV.
10.35A	

NOTES:

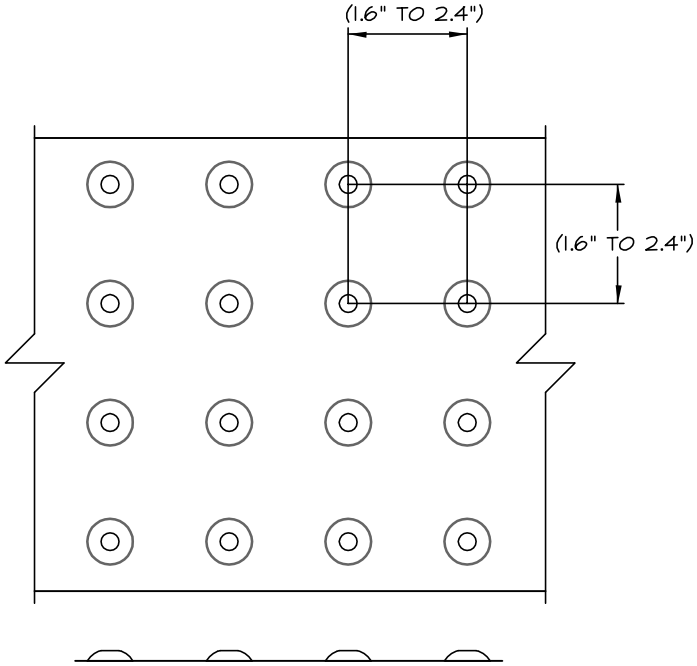
1. ALL DETECTABLE WARNING DEVICES USED IN NEW CONSTRUCTION SHALL BE OF A RIDGID PRECAST OR EMBEDDED PRODUCT APPROVED BY THE TOWN ENGINEER. RETRO FIT MATS WILL ONLY BE ALLOWEED ON EXISTING RAMPS WITH PRIOR APPROVAL OF THE TOWN ENGINEER FOR MATERIAL TYPE AND INSTALLATION (IE. RESURFACING).
2. WIDTH OF DETECTABLE WARNING AREA SHALL BE A MINIMUM OF 4 FEET AND VARY WITH WIDTH OF RAMP.
3. LENGTH OF DETECTABLE WARNING AREA SHALL BE 2 FEET REGARDLESS OF SECTION WIDTH.
4. DETECTABLE WARNING AREA CAN BE SQUARE WHERE USED IN A CURB RADIUS.
5. DETECTABLE WARNING DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
6. DECTECTABLE WARNING AREA SHALL BE COLORED BLACK IN ALL LOCATIONS EXCEPT ON TRYON STREET MALL, WHERE FRENCH GRAY IS TO BE USED.
7. IF PAVERS ARE TO BE USED, PAVERS SHALL BE 6" THICK AND CAST FROM 5000 psi CONCRETE.
8. MATS ARE TO BE RIGID WITH TURN DOWN EDGES EMBEDDED IN CONCRETE TO ELIMINATE TRIP HAZARD.



TRUNCATED DOME SECTION



TRUNCATED DOME PLAN VIEW



TRUNCATED DOME SPACING

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TRUNCATED DOMES PLAN AND CROSS-SECTION

STD. NO.	REV.
10.35B	

NOTES:

1. SEE STD. NO. 10.36B FOR GENERAL NOTES AND CLEAR ZONE DISTANCES

(H) 2'-6" CURB AND GUTTER, STD. 10.17A

(M) SAFETY RAIL, STD. 50.04A & 50.04B

(S) 4'-0" SIDEWALK, STD. 10.22

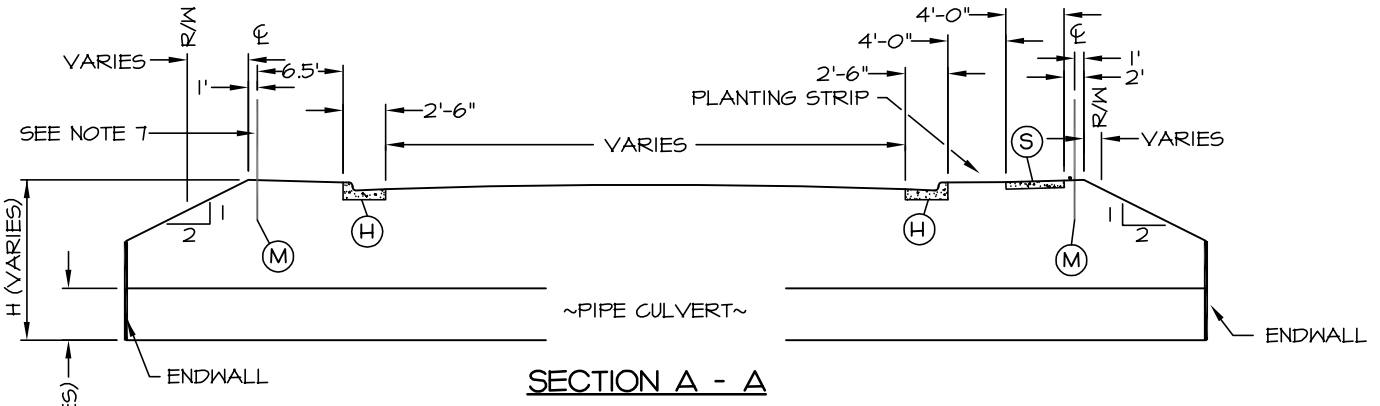
(H1) 2'-0" VALLEY GUTTER. STD. 10.17B

(H2) CURB TRANSITION 2'-6" CURB AND GUTTER TO 2'-0" VALLEY GUTTER, STD. 10.19

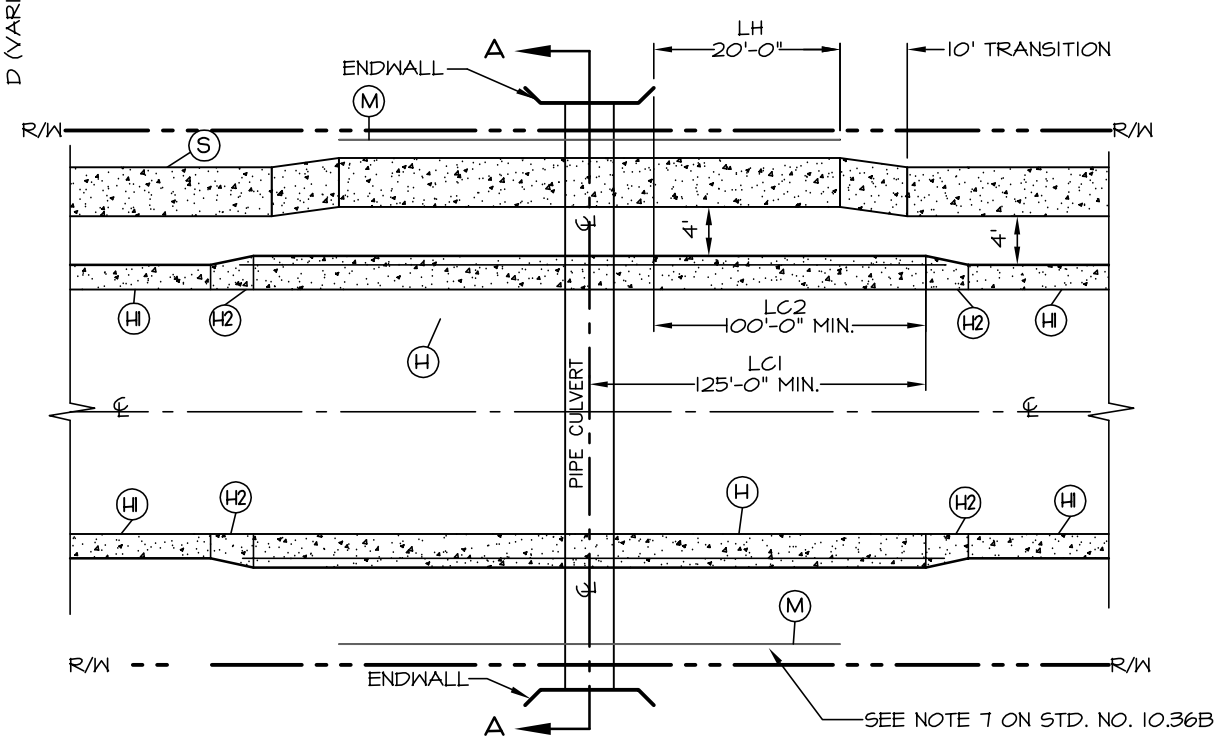
LH = DISTANCE FROM END OF WINGWALL TO END OF SAFETY RAIL.

LC1 = DISTANCE FROM ℄ OF CULVERT TO END OF 2'-6" CURB AND GUTTER GUTTER.

LC2 = DISTANCE FROM END OF WINGWALL TO END OF 2'-6" CURB AND GUTTER.



SECTION A - A



NOT TO SCALE

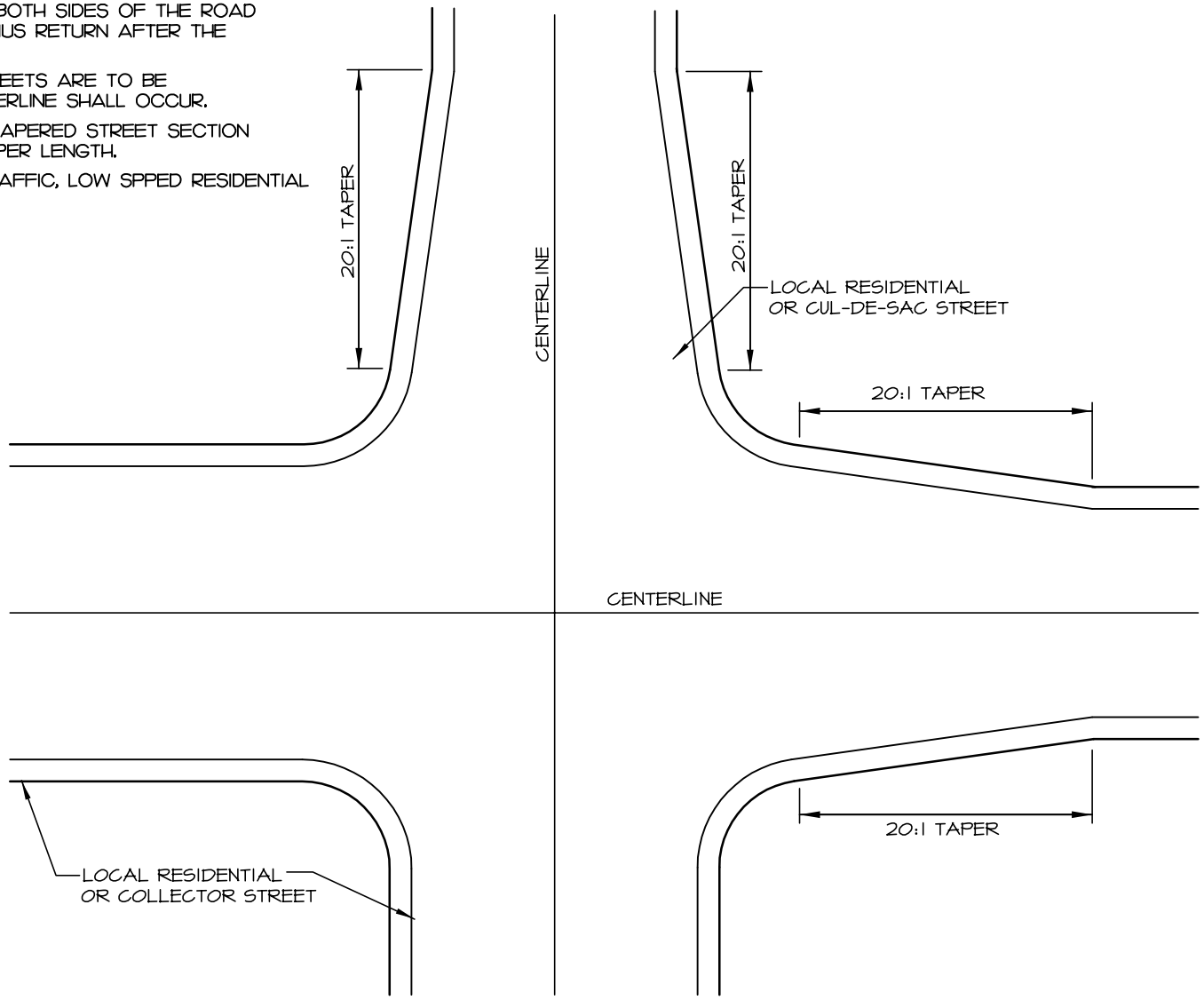
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CULVERT CROSSINGS ON RESIDENTIAL AND COMMERCIAL STREETS

STD. NO.	REV.
10.36A	

GENERAL NOTES:

1. ALL TAPERS ARE 20:1 AND OCCUR ON BOTH SIDES OF THE ROAD TO BE TAPERED STARTING AT THE RADIUS RETURN AFTER THE INTERSECTION.
2. CENTERLINE OF LOCAL RESIDENTIAL STREETS ARE TO BE MAINTAINED. NO SHIFTING OF THE CENTERLINE SHALL OCCUR.
3. RIGHT OF WAY AND SIDEWALK BEHIND TAPERED STREET SECTION TO TAPER OVER THE SAME STREET TAPER LENGTH.
4. DETAIL ALSO APPLIES FOR ALL LOW TRAFFIC, LOW SPPED RESIDENTIAL STREETS.



NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TYPICAL RESIDENTIAL STREET TAPER

STD. NO.	REV.
10.37	

GENERAL NOTES:

1. UNLESS OTHERWISE DETERMINED BY THE CITY ENGINEER, THE MEASURES ILLUSTRATED SHALL BE USED WHEN CULVERT DIAMETER, D, IS GREATER THAN OR EQUAL TO 24 INCHES AND WHEN THE DIFFERENCE IN ELEVATION BETWEEN THE CULVERT INVERT AND THE TOP OF SLOPE, H, IS GREATER THAN OR EQUAL TO 5 FEET.
2. INSTALLATION OF 2'-6" CURB AND GUTTER MAY NOT BE REQUIRED WHEN AN ADEQUATE CLEAR ZONE IS PROVIDED FOR VEHICLES WITH A MAXIMUM OF 6:1 SLOPE (SEE TABLE 1).
3. INSTALLATION OF SAFETY RAIL MAY NOT BE REQUIRED WHEN A 10-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE SIDEWALK WITH A MAXIMUM OF 6:1 SLOPE. WHERE NO SIDEWALK IS REQUIRED, INSTALLATION OF SAFETY RAIL MAY NOT BE REQUIRED WHEN A 15-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE CURB WITH A MAXIMUM OF 6:1 SLOPE.
4. FOR CULVERT CROSSINGS WITHOUT ENDWALLS, LH AND LC2 SHALL BE MEASURED FROM THE OUTSIDE OF THE NEAREST WALL OF THE CULVERT BARREL.
5. FOR MULITIPLE BARREL CULVERT CROSSINGS, LC1 SHALL BE MEASURED FROM THE CENTERLINES OF THE OUTBOARD CULVERT BARRELS.
6. WHEN NECESSARY, AS DETERMINED BY THE TOWN ENGINEER, ADDITIONAL MEASURES MAY BE REQUIRED.
7. INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF STREET IF SIDEWALK IS REQUIRED ON BOTH SIDES.
8. INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF STREET IF NO SIDEWALK IS REQUIRED EXCEPT WHEN A 15-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE CURB WITH A MAXIMUM OF 6:1 SLOPE.
9. INSTALLATION OF SAFETY RAIL IS REQUIRED ON THE SIDEWALK SIDE OF STREET IF SIDEWALK IS ONLY REQUIRED ON ONE SIDE OF STREET. INSTALL EITHER SAFTEY RAIL OR 15-FT CLEAR ZONE ON SIDE WITHOUT SIDEWALK.
10. DESIGN ADT IS CALCULATED ASSUMING A TRIP GENERATION OF 10 DAILY TRIPS PER SINGLE FAMILY DWELLING UNIT.

TABLE 1.
CLEAR ZONE DISTANCES
LOCAL, COLLECTOR, AND COMMERCIAL STREETS

DESIGN ADT	CLEAR ZONE FROM EDGE OF PAVEMENT	
	TANGENT SECTION	CURVE (WITHIN 125' OF CULVERT)
UNDER 750	10'	15'
750 - 1500	12'	18'
1501 - 6000	14'	21'
OVER 6000	16'	24'

SEE STD. NO. 10.36A FOR PLAN AND CROSS SECTIONAL SCHEMATICS.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CULVERT CROSSINGS ON RESIDENTIAL AND COMMERCIAL STREETS

STD. NO.	REV.
10.36B	

DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
300.01	METHOD OF PIPE INSTALLATION - METHOD A	
310.02	PARALLEL PIPE END SECTION-PRECAST CONCRETE FOR 15" TO 24" PIPE	REQUIRED IN RIGHT OF WAY WITHIN THE ETJ
310.03	CROSS PIPE END SECTION-PRECAST CONCRETE FOR 18" TO 30" PIPE	REQUIRED IN RIGHT OF WAY WITHIN THE ETJ
310.10	DRIVEWAY PIPE CONSTRUCTION USING NO SPECIAL END SECTIONS	ONLY AT LOCATIONS APPROVED BY THE CITY ENGINEER
815.03	PIPE UNDERDRAIN AND BLIND DRAIN	
816.03	GEOCOMPOSITE SHOULDER DRAIN	
838.01	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	15" THRU 48" PIPE 90' SKEW	NOTE 1
838.02	CONCRETE ENDWALL AND SLUICE GATE 15" THRU 36" PIPE-90' SKEW	NOTE 1
838.04	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	17"X13"THRU 71"X47" PIPE ARCH 90' SKEW	NOTE 1
838.05	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 15" THRU 48" PIPE	NOTE 1
838.06	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 17"X13" THRU 71"X47"	NOTE 1
	71"X47" ARCH PIPE	NOTE 1
838.07	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	40"X31" THRU 66"X51" PIPE ARCH 90'SKEW	NOTE 1
838.08	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 40"X32"	NOTE 1
	THRU 66"X51" PIPE ARCH	NOTE 1
838.10	CONCRETE ENDWALL FOR OUTFALL 4'-6" OR 8" PIPE	NOTE 1
838.11	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	15" THRU 48" 90' SKEW	NOTE 1
838.14	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS 17"X31"	NOTE 1
	THRU 71"X47" 90' SKEW	NOTE 1
838.15	BRICK "L" ENDWALL FOR SINGLE PIPE CULVERTS 15" THRU 48" PIPE	NOTE 1
838.16	BRICK "L" ENDWALL FOR SINGLE PIPE CULVERTS 17"X13" THRU	NOTE 1
	71"X47" PIPE ARCH	NOTE 1
838.17	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS 40"X31"	NOTE 1
	THRU 66"X51" PIPE ARCH 90'SKEW	NOTE 1
838.18	BRICK ENDWALL FOR SINGLE PIPE CULVERTS 40"X31" THRU	NOTE 1
	66"X51" PIPE ARCH 90' SKEW	NOTE 1
838.20	BRICK ENDWALL FOR OUTFALL 4", 6" AND 8" PIPE	NOTE 1
838.21	REINFORCED CONCRETE ENDWALL FOR SINGLE 54" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.22	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 54" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.27	REINFORCED CONCRETE ENDWALL FOR SINGLE 60" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.28	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 60" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.33	REINFORCED CONCRETE ENDWALL FOR SINGLE 66" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.34	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 66" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.39	REINFORCED CONCRETE ENDWALL FOR SINGLE 72" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.40	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 72" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD

NOTE 1: FOR ALL STRUCTURES - NCDOT REQUIRES CLASS B CONCRETE (2500PSI). THE TOWN REQUIRES 3600 PSI CONCRETE STRENGTH • 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL TOWN PROJECTS.

NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

NCDOT STANDARDS

APPROVED FOR USE IN THE TOWN OF STALLINGS

STD. NO.	REV.
20.00A	

DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
838.45	NOTES FOR REINFORCED CONCRETE ENDWALL STANDARD DRAWINGS	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
	838.21 THRU 838.40	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.51	REINFORCED BRICK ENDWALL FOR SINGLE 54" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.52	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 54" PIPE 90'SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.57	REINFORCED BRICK ENDWALL FOR SINGLE 60" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.58	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 60" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.63	REINFORCED BRICK ENDWALL FOR SINGLE 66" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.64	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 66" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.69	REINFORCED BRICK ENDWALL FOR SINGLE 72" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.70	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 72" PIPE 90' SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.75	NOTES FOR REINFORCED BRICK ENDWALL STANDARD DRAWINGS 838.51 THRU 838.70	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.80	PRECAST CONCRETE ENDWALL FOR SINGLE 12" THRU 72" PIPE 90' SKEW	
840.00	CONCRETE BASE PAD FOR DRAINAGE STRUCTURES	
840.01	BRICK CATCH BASIN 15" THRU 54" PIPE	
840.02	CONCRETE CATCH BASIN 12" THRU 54" PIPE	
840.03	FRAME, GRATE BASIN 12" THRU 54" PIPE	TYPE F AND G GRATES ARE OPTIONAL WITHIN THE CITY LIMITS
840.04	CONCRETE OPEN THROAT CATCH BASIN 12" THRU 48" PIPE	NOTE 1, OPENINGS PERMITTED IN 4 SIDES OUTSIDE OF STREET R/W MANHOLE RING AND COVER REQUIRED IN TOP SLAB SEE CLDS 20.05 A&B
840.05	BRICK OPEN THROAT CATCH BASIN 15" THRU 48" PIPE	NOTE 1, OPENINGS PERMITTED IN 4 SIDES OUTSIDE OF STREET R/W MANHOLE RING AND COVER REQUIRED IN TOP SLAB SEE CLDS 20.05 A&B
840.14	CONCRETE DROP INLET 12" THRU 30" PIPE	NOTE 1
840.15	BRICK DROP INLET 12" THRU 30' PIPE	NOTE 1
840.16	DROP INLET FRAME AND GRATE FOR USE WITH DWGS. 840.14 & 840.15	NOTE 1
840.17	CONCRETE GRATED DROP INLET TYPE "A" 12" THRU 72" PIPE	NOTE 1
840.18	CONCRETE GRATED DROP INLET TYPE "B" 12" THRU 36" PIPE	NOTE 1
840.19	CONCRETE GRATED DROP INLET TYPE "D" 12" THRU 36" PIPE	NOTE 1
840.20	FRAMES AND WIDE SLOT FLAT GRATES	NOT FOR USE IN PEDESTRIAN AREAS
840.22	FRAMES AND WIDE SLOT SAG GRATES	NOT FOR USE IN PEDESTRIAN AREAS
840.24	FRAMES AND NARROW SLOT SAG GRATES	
840.25	ANCHORAGE FOR FRAMES BRICK OR CONCRETE	
840.26	BRICK GRATED DROP INLET TYPE "A" 12" THRU 72" PIPE	
840.27	BRICK GRATED DROP INLET TYPE "B" 12" THRU 36" PIPE	
840.28	BRICK GRATED DROP INLET TYPE "D" 12" THRU 36" PIPE	
840.29	FRAMES AND NARROW SLOT FLAT GRATES	
840.30	DRIVEWAY DROP INLET	

NOTE 1: FOR ALL STRUCTURES - NCDOT REQUIRES CLASS B CONCRETE (2500PSI). THE TOWN REQUIRES 3600 PSI CONCRETE STRENGTH • 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL TOWN PROJECTS.

NOT TO SCALE

DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
840.31	CONCRETE JUNCTION BOX (WITH OPTIONAL MANHOLE) 12" THRU 66" PIPE	NOTE 1, OPTIONAL MANHOLE IS REQUIRED
840.32	BRICK JUNCTION BOX 12" THRU 66" PIPE	NOTE 1, OPTIONAL MANHOLE IS REQUIRED
840.34	TRAFFIC BEARING JUNCTION BOX FOR USE WITH PIPES 42" AND UNDER	NOTE 1, OPTIONAL MANHOLE IS REQUIRED, AS MEASURED FROM BOTTOM OF TOP SLAB -- FOR JUNCTION BOX HEIGHT 0'-4'8" USE 8" THICK WALL, FROM 4'8" HEIGHT TO 10' HEIGHT, USE 12" THICK WALL. IF PROPOSED STRUCTURE EXCEEDS 12'-0" HEIGHT A SPECIAL DESIGN WILL BE REQUIRED
840.35	TRAFFIC BEARING DROP INLET FOR CAST IRON DOUBLE FRAME AND GRATES	
840.36	TRAFFIC BEARING DROP INLET FOR STEEL (840.37) DOUBLE FRAME AND GRATES	NOT FOR USE IN PEDESTRIAN AREAS
840.37	STEEL GRATE AND FRAME	NOT FOR USE IN PEDESTRIAN AREAS
840.41	SPRING BOX CONCRETE OR BRICK	
840.45	PRECAST DRAINAGE STRUCTURE (SOLID AND WAFFLE WALL)	WAFFLE WALL IS NOT PERMITTED IN ROADWAY, PLANTING STRIPS, OR MEDIANS. ALL OPENINGS SHALL BE PRE-CAST
840.46	TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE	
840.51	BRICK MANHOLE 12" 36" PIPE	
840.52	PRECAST MANHOLE 4', 5' AND 6' DIAMETER 12" THRU 42" PIPE	
840.53	PRECAST MANHOLE WITH MASONRY BASE 12" THRU 42" PIPE	
840.54	MANHOLE FRAME AND COVER	
840.60	DRAINAGE STRUCTURE STEPS	
840.71	CONCRETE PAVED DITCHES	
840.72	PIPE COLLAR	
850.01	CONCRETE PAVED DITCHES	
852.04	METHODS FOR PLACEMENT OF DROP INLETS IN GRASSED MEDIAN (USING 1'-6" CURB AND GUTTER)	
852.05	MEDIAN CURB FOR CATCH BASIN (FOR USE WITH 1'-6" CURB AND GUTTER)	
852.06	METHOD OF PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS	
876.01	RIP RAP IN CHANNELS	
876.03	DRAINAGE DITCHES WITH CLASS "A" RIP RAP	
876.04	DRAINAGE DITCHES WITH CLASS "B" RIP RAP	
310.01	1998 DRAWINGS CONCRETE FLARED END SECTION	

NOTE 1: FOR ALL STRUCTURES - NCDOT REQUIRES CLASS B CONCRETE (2500PSI). THE TOWN REQUIRES 3600 PSI CONCRETE STRENGTH @ 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL TOWN PROJECTS.

NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

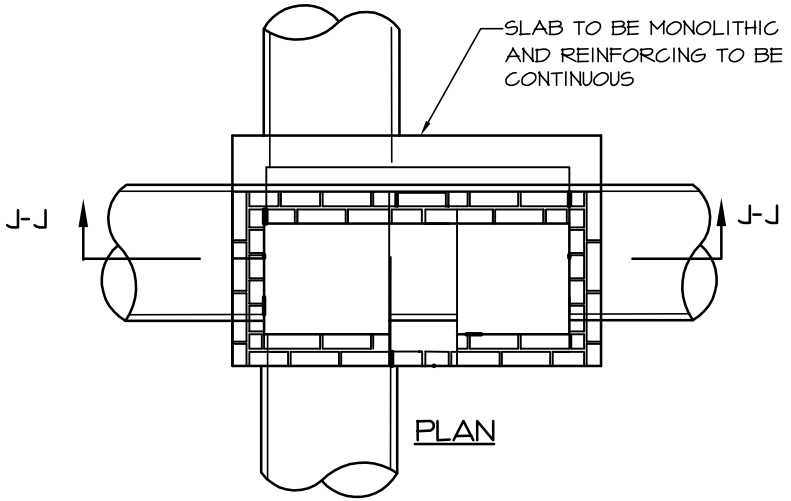
NCDOT STANDARDS

APPROVED FOR USE IN THE TOWN OF STALLINGS

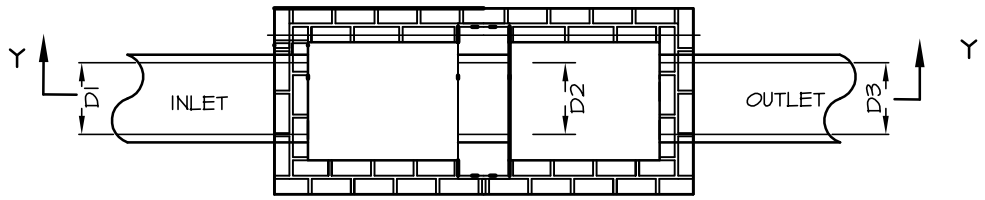
STD. NO.	REV.
20.00C	

GENERAL NOTES:

1. SEE NCDOT STANDARD 840.01 FOR DETAILS BASED ON PIPE SIZE PER CROSS SECTION.
2. CONSTRUCT TWO SINGLE BASINS PER NCDOT STANDARD WITH DOUBLE INTERIOR WALL.
3. ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.
4. BASE SLAB SHALL BE MONOLITHIC.
5. SEE CLDSM STANDARDS #10.29 AND #10.30 FOR PLACEMENT OF CATCH BASIN.
6. PIPE SECTION D2 CONNECTING CATCH BASINS SHALL HAVE A MINIMUM DIAMETER SAME AS OF OUTLET PIPE D3.
7. ALL REINFORCING STEEL SHOWN ON NCDOT STANDARDS IS TO BE PROVIDED AS CONTINUOUS MEMBERS. (NO LAPS, USED AS A SINGLE CONTINUOUS BAR IN THE SLAB)
8. WEEP HOLES SHALL BE PLACED IN BACK WALL WITH FILTER FABRIC OR STONE ON BACK SIDE



PLAN



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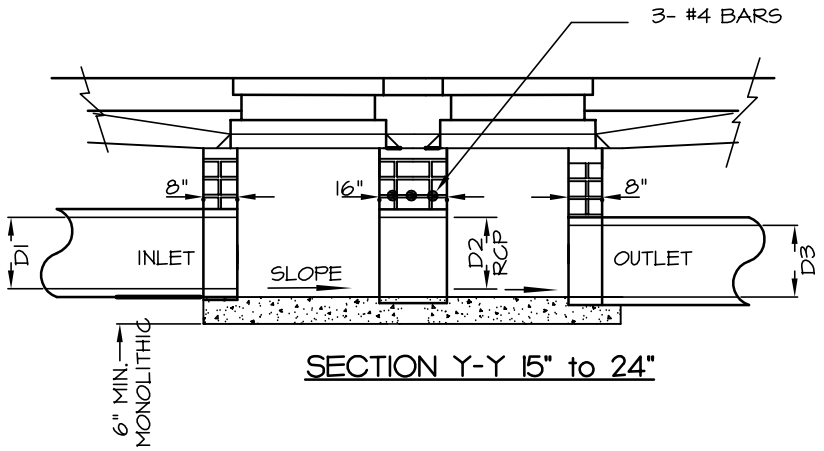
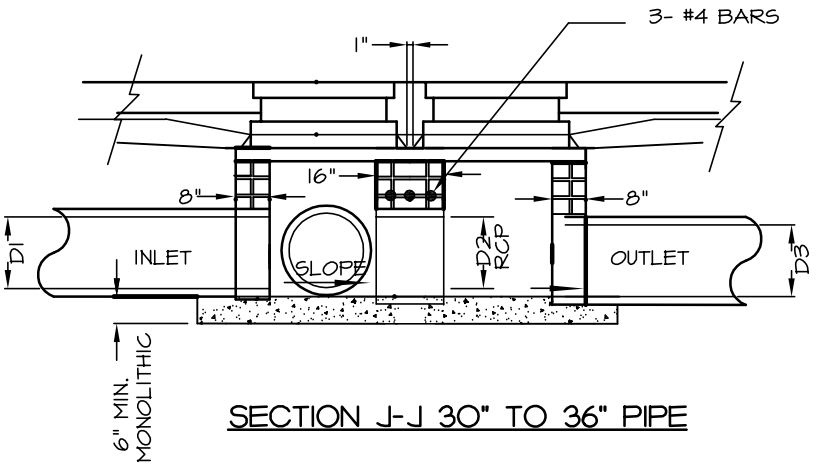


SECTION Y-Y 15" to 24"



SECTION J-J 30" TO 36" PIPE

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

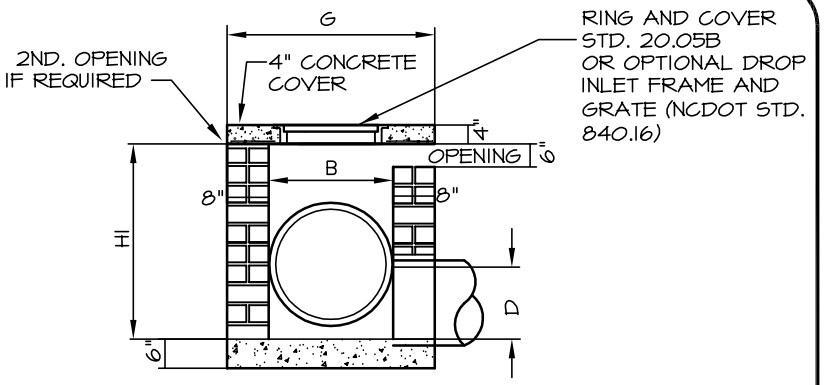
BRICK DOUBLE CATCH BASIN
15" THRU 36" PIPE

STD. NO.	REV.
20.03	

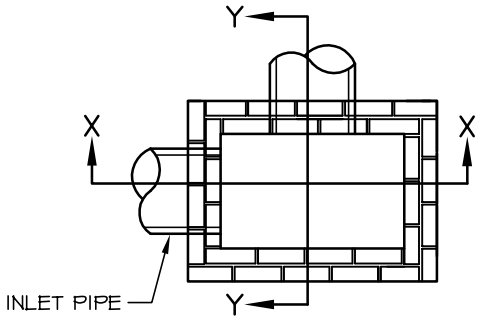
GENERAL NOTES:

1. MORTAR JOINTS SHOULD BE BETWEEN 3/8" AND 5/8" THICK.
2. ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.
3. THE 6" OPENING SHOWN MAY BE INCREASED TO 8" MAX. IF DEEMED TO BE NECESSARY BY THE ENGINEER.
4. ALL CATCH BASIN OVER 3'-6" IN DEPTH SHALL BE PROVIDED WITH STEPS 1'-2" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH STD. 20.12.
5. CONCRETE BRICK MAY BE USED IN LIEU OF HARD COMMON CLAY BRICK.
6. JUMBO BRICK WILL BE PERMITTED.
7. FOR 8'-0" IN HEIGHT OR LESS USE 8" WALL. OVER 8'-0" IN HEIGHT USE 12" WALL TO 6'-0" FROM TOP OF WALL, AND 8" WALL FOR THE REMAINING 6'-0".
8. ALL EXPOSED JOINTS WILL BE CONCAVE TOOLED.
9. ALL PIPE IN STORM DRAIN STRUCTURE SHALL BE STRUCK EVEN WITH THE INSIDE WALL, GROUTED AND BRUSHED SMOOTH.
10. WEEP HOLES SHALL BE PLACED IN BACK WALL WITH FILTER FABRIC OR STONE ON BACK SIDE.
11. THIS CATCH BASIN IS NOT TO BE USED WITHIN STREET RIGHT OF WAY UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

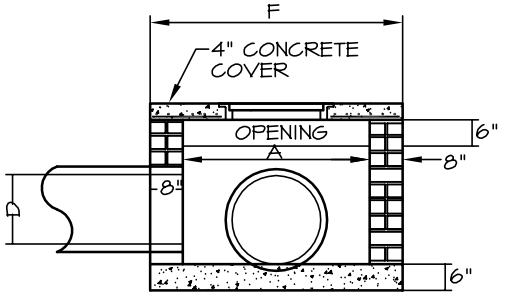
DIMENSIONS OF BOX AND PIPE				REINFORCING					COVER DIMENSION	
PIPE	SPAN	WIDTH	HEIGHT	BARS - X		BARS - Y		TOTAL		
D	A	B	H(MIN.)	NO.	LENGTH	NO.	LENGTH	LBS.	F	G
15"	3'-6"	2'-3"	2'-7"	2	3'-4"	7	4'-7"	26	4'-10"	3'-7"
18"	4'-0"	2'-8"	2'-11"	2	3'-9"	8	5'-1"	33	5'-4"	4'-0"
24"	4'-0"	2'-8"	3'-5"	2	3'-9"	8	5'-1"	33	5'-4"	4'-0"
30"	4'-0"	3'-6"	3'-11"	2	4'-7"	9	5'-1"	37	5'-4"	4'-10"
36"	4'-0"	3'-6"	4'-6"	2	4'-7"	9	5'-1"	37	5'-4"	4'-10"
42"	4'-0"	3'-6"	4'-11"	2	4'-7"	9	5'-1"	37	5'-4"	4'-10"
48"	4'-6"	4'-0"	5'-5"	2	5'-1"	10	5'-7"	45	5'-10"	5'-4"



SECTION Y-Y



PLAN



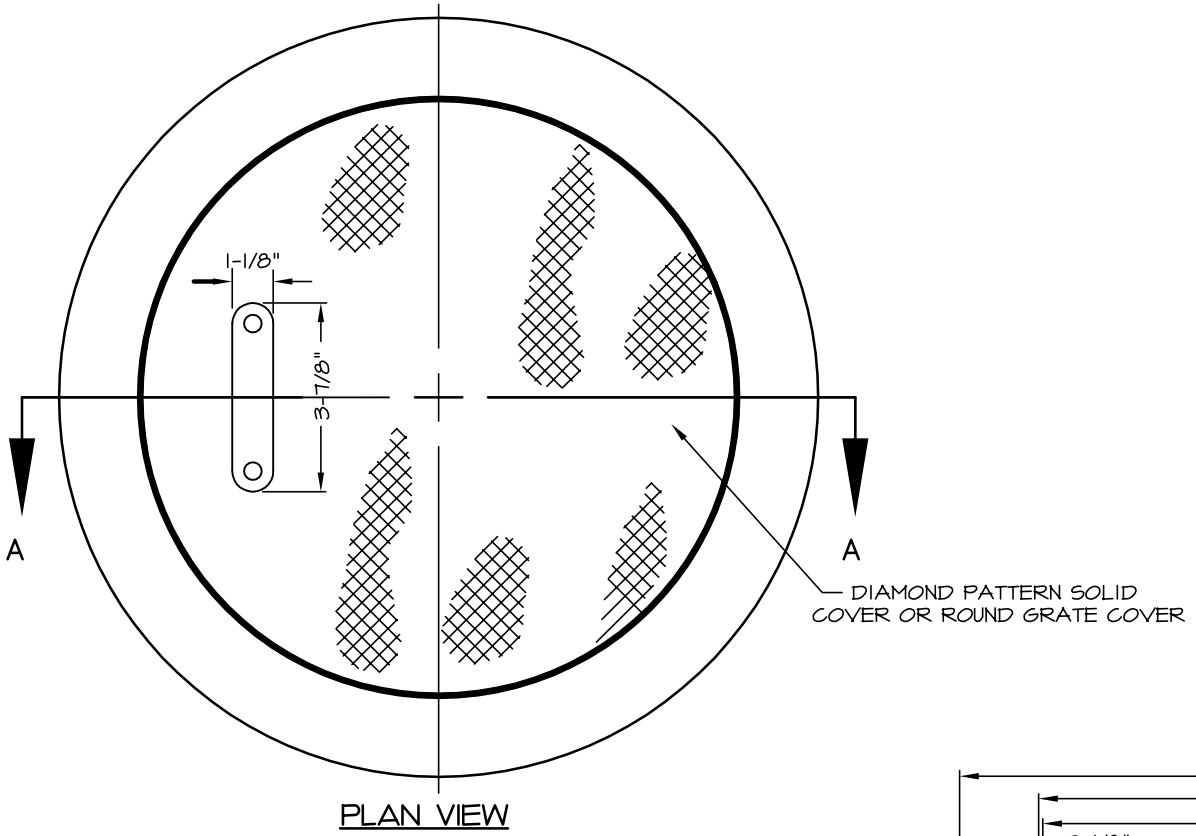
SECTION X-X

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

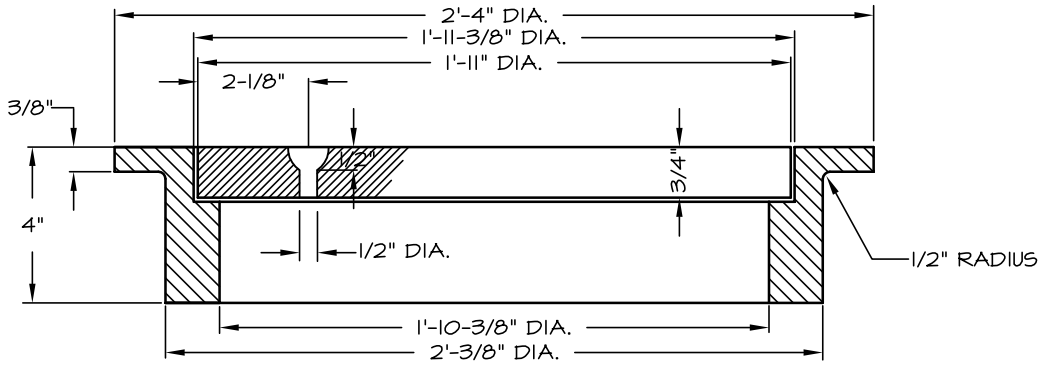
SLAB TYPE CATCH BASIN
15" THRU 48" PIPE

STD. NO.	REV.
20.05A	



PLAN VIEW

MINIMUM WEIGHT	
RING	96 LBS
COVER	86 LBS



SECTION A-A

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

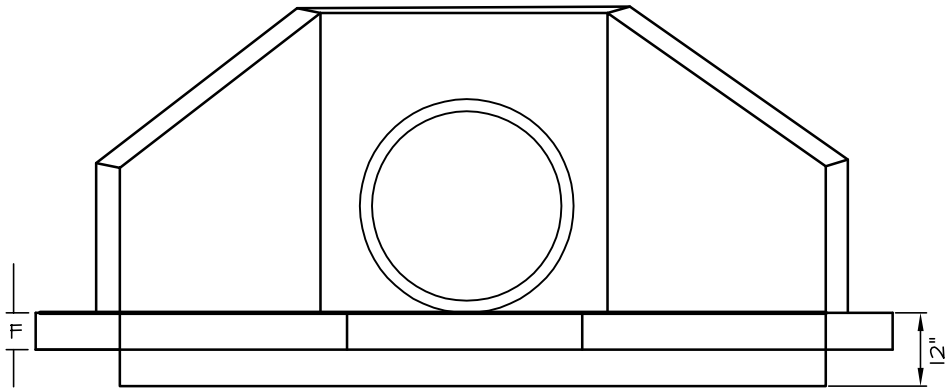
MANHOLE RING AND COVER FOR SLAB TYPE CATCH BASIN

STD. NO.	REV.
20.05B	

CONCRETE PIPE			DIMENSIONS									
WALL THK.	OUT DIA.	IN DIA.	H	A	B	C	E	F	G	W	K	M
2 1/4"	19 1/2"	15"	27 1/2 "	20"	24"	8"	7 1/2"	4"	4"	8"	17"	10"
2 1/2"	23"	18"	31"	20"	24"	8"	9"	4"	4"	8"	17"	12"
3"	30"	24"	38"	20"	30"	8"	12"	4"	4"	8"	21"	15"
3 1/2"	37"	30"	45"	20"	44"	12"	15"	6"	8"	8"	31"	18"
4"	44"	36"	52"	32"	44"	12"	18"	6"	8"	8"	31"	22"
4 1/2"	51"	42"	59"	32"	48"	12"	21"	6"	8"	8"	34"	26"
5"	58"	48"	66"	32"	48"	12"	24"	6"	8"	8"	34"	29"
5 1/2"	65"	54"	73"	32"	54"	12"	27"	6"	8"	8"	38"	33"
6"	72"	60"	80"	36"	66"	12"	30"	8"	12"	12"	46"	36"
6 1/2"	79"	66"	87"	36"	72"	12"	33"	8"	12"	12"	51"	40"
7"	86"	72"	94"	36"	78"	12"	36"	8"	12"	12"	56"	43"

REINFORCING

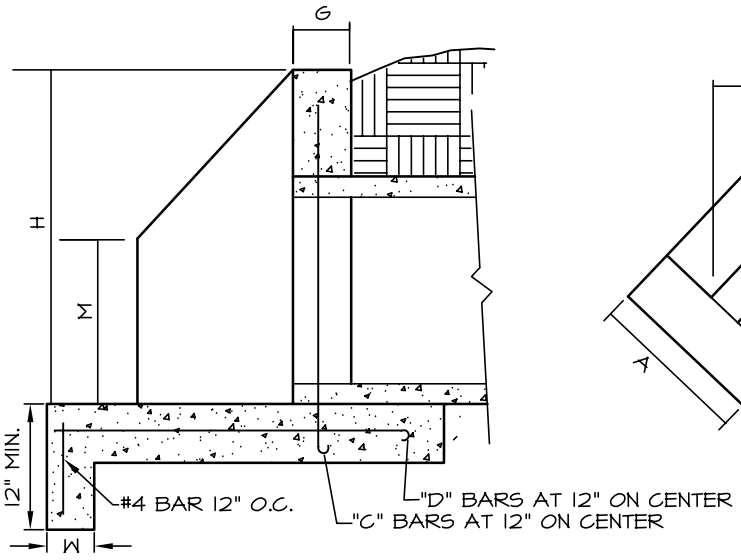
DIA.	"C" BAR		"D" BAR	
	NO.	LGT.	NO.	LGT.
15"	4	2'-0"	4	1'-11"
18"	4	2'-3"	4	2'-2"
24"	4	2'-9"	4	2'-8"
30"	4	3'-3"	4	3'-2"
36"	4	3'-9"	4	3'-8"
42"	4	4'-3"	4	4'-2"
48"	4	4'-9"	4	4'-8"
54"	4	5'-3"	4	5'-2"
60"	4	5'-9"	4	5'-8"
66"	4	6'-3"	4	6'-2"
72"	4	6'-9"	4	6'-8"



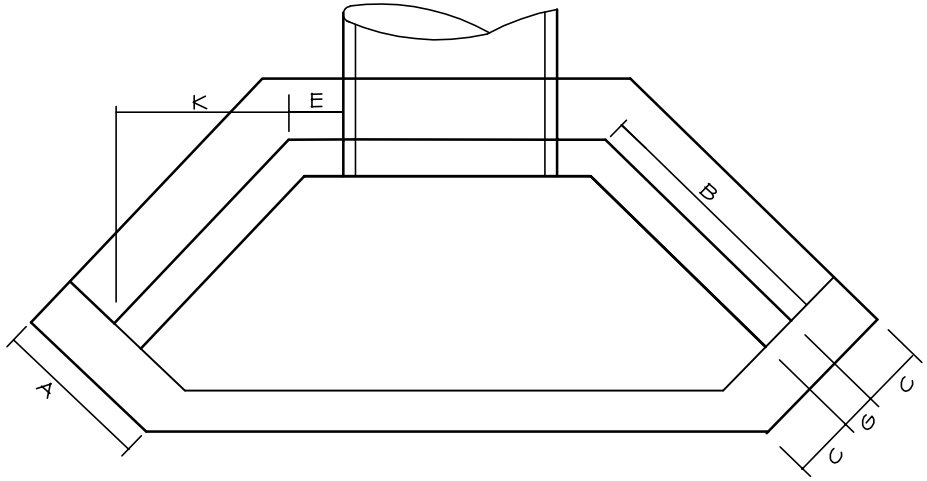
FRONT VIEW

GENERAL NOTES:

1. ALL CORNERS TO BE CHAMFERED 1" IF CONCRETE.
2. THE CONTRACTOR WILL BE REQUIRED TO PLACE 2-#6 BARS "Y" IN THE TOP OF ALL ENDWALL FOR PIPE CULVERTS 42" AND OVER WITH A MINIMUM 3" COVER AND A LENGTH OF 6" LESS THAN ENDWALL.
3. FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
4. WALL THICKNESS (T) SHOWN IS NOT TO BE INTERPRETED TO MEAN THE THICKNESS ACCEPTABLE BUT IS USED ONLY IN COMPUTING ENDWALL QUANTITIES.
5. IF CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE, AND POURS BASE SEPARATELY, THE TOP OF BASE SHALL BE LEFT ROUGH.
6. ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.



SIDE VIEW



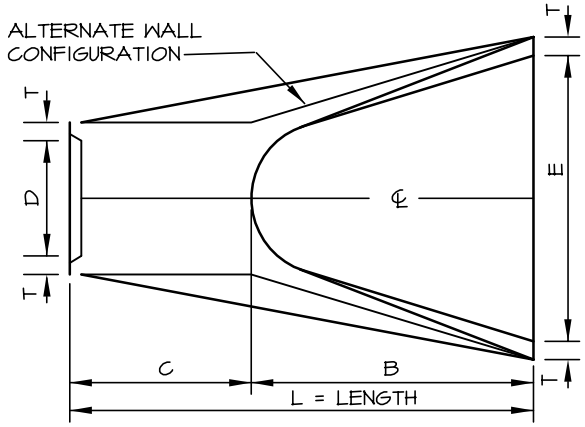
TOP VIEW

NOT TO SCALE

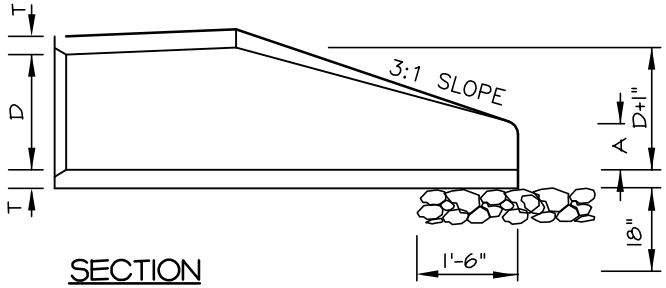
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CONCRETE WINGWALL WITH SPLASH PAD

STD. NO.	REV.
20.17	

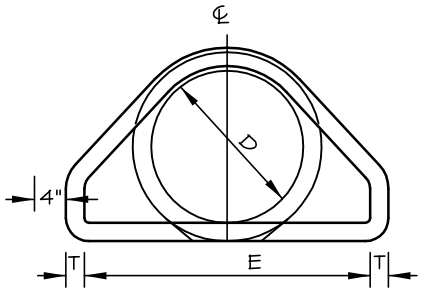


PLAN



SECTION

SEE STD. 20.23 AND 20.24



END VIEW

TABLE OF DIMENSIONS							
D	T	A	B	C	E	L	WT.
12"	2-1/4"	4"	2'-0"	4'-1"	2'-0"	6'-1"	730
15"	2-1/4"	6"	2'-3"	3'-10"	2'-0"	6'-1"	730
18"	2-1/2"	9"	2'-3"	3'-10"	3'-0"	6'-1"	1190
24"	3"	10"	3'-8"	2'-6"	4'-0"	6'-2"	1770
30"	3-1/2"	1'-0"	4'-6"	1'-8"	5'-0"	6'-2"	2380
36"	4"	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"	5320
42"	4-1/2"	1'-9"	5'-3"	2'-11"	6'-6"	8'-2"	5920
48"	5"	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"	7470
54"	5-1/2"	2'-3"	5'-6"	2'-10"	7'-6"	8'-4"	8810
60"	6"	2'-6"	5'-0"	3'-3"	8'-0"	8'-3"	11180
66"	6-1/2"	3'-0"	6'-0"	2'-3"	8'-6"	8'-3"	12530
72"	7"	3'-0"	6'-6"	1'-9"	9'-0"	8'-3"	13980

GENERAL NOTES:

1. SEE FORMER NCDOT STANDARD 310.01 FOR DETAILS.
2. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M170, TABLE 2, WALL B.
3. ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.
4. PROVIDE TONGUE OR SPIGOT JOINT AT INLET END SECTION.
5. PROVIDE GROOVE OR BELL JOINT AT OUTLET END SECTION.
6. THE DIMENSIONS FOR END SECTIONS SHALL SUBSTANTIALLY AGREE WITH THE TABLE. MINOR VARIATIONS WILL BE PERMITTED BASED ON THE MANUFACTURER'S STANDARD FORMS AND TEMPLATES.
7. NOT TO BE USED IN NCDOT MAINTAINED RIGHT OF WAY.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

FLARED END SECTION
12" THRU 72" PIPE

STD. NO.	REV.
20.22	

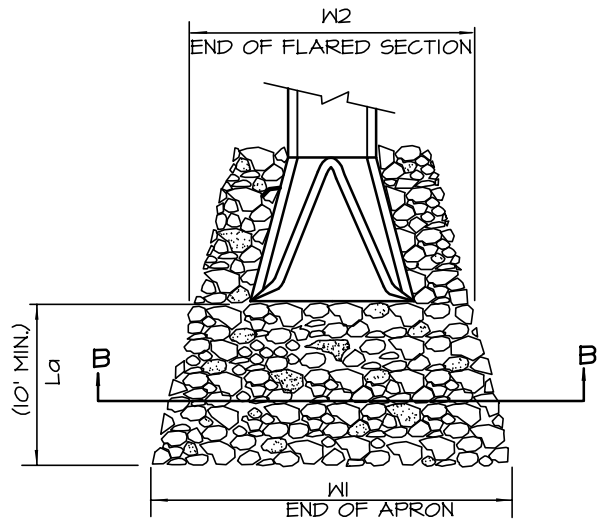
NOTES:

1. CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER.
2. REFER TO THE STALLINGS STORM WATER DESIGN MANUAL FOR RIPRAP APRON DESIGN STANDARDS.
3. RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
4. THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSTREAM END.
5. THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL. MAXIMUM TAPER TO RECEIVING CHANNEL 5:1
6. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
7. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
8. NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
9. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
10. ANY DISTURBED AREA FROM END OF APRON TO RECIEVING CHANNEL MUST BE STABILIZED.

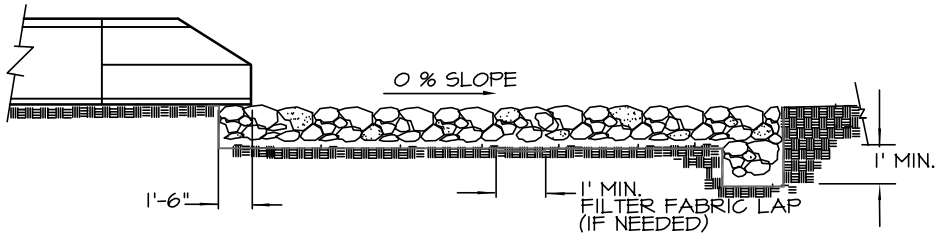
USE USDA NOMOGRAPH FROM NC SEDIMENT AND EROSION CONTROL MANUAL OR CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR DESIGN DATA.

OUTLET	La	W1	W2	*T	H

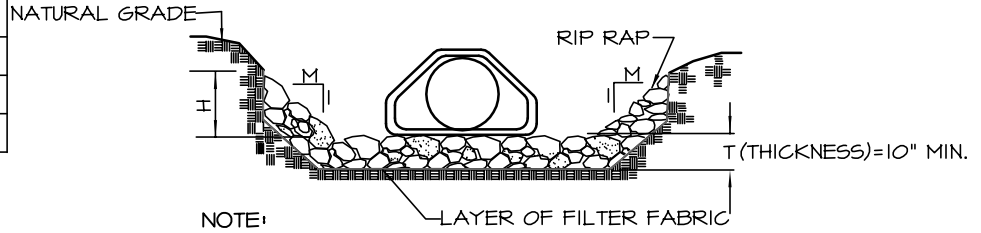
* d50 (see fig 8.06 a&b "NC SEDIMENT AND EROSION CONTROL MANUAL"
dmax = 1.5 x d50
T = 1.5 X dmax.
T(min.)=10"



PLAN



ELEVATION



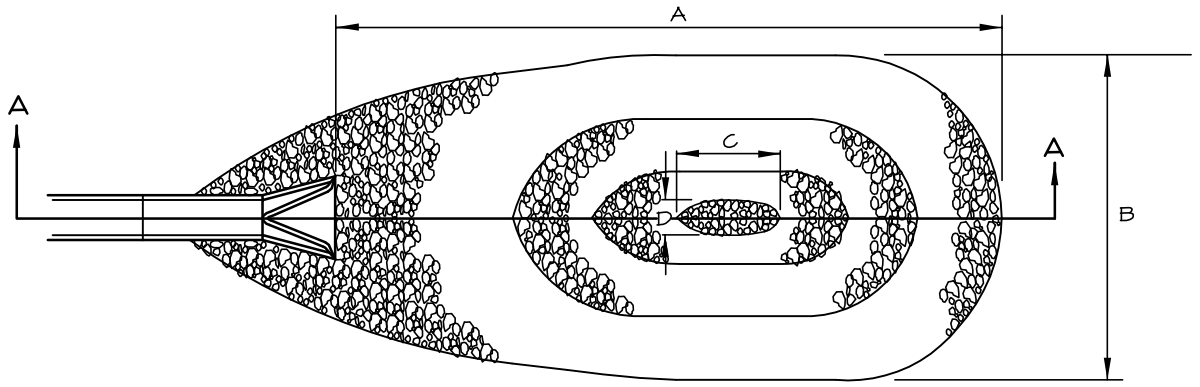
SECTION B-B

NOT TO SCALE

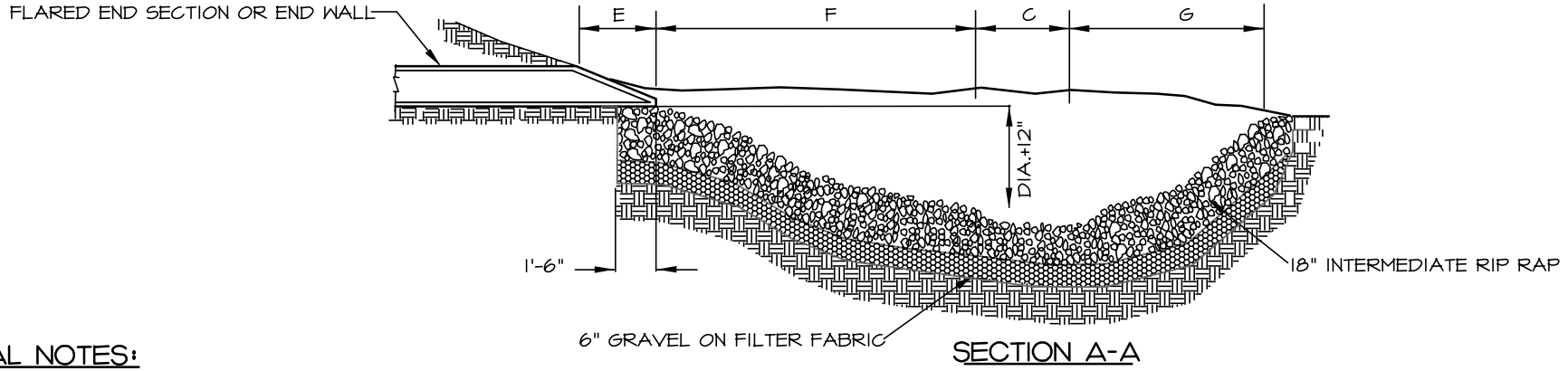
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RIPRAP APRON AT PIPE OUTFALLS OTHER THAN AT CREEK BUFFERS

STD. NO.	REV.
20.23	



PLAN



SECTION A-A

GENERAL NOTES:

1. THIS DETAIL IS TO ONLY BE USED WHEN OUTFALL HAS A CONTINUOUS FLOW OF WATER AND WITH PRIOR APPROVAL OF THE TOWN ENGINEER.

PIPE SIZE	A	B	C	D	E	F	G	WT. RIP RAP IN TONS
15"	10'	7'	1 1/2'	1'	1'	4 1/2'	3'	6
18"	12'	8'	2'	1'	1'	5'	4'	8
21"	15'	9'	2 1/2'	1 1/2'	1'	7'	4 1/2'	12
24"	17'	10'	2 1/2'	1 1/2'	1'	8'	5 1/2'	15
30"	20'	13'	3'	2'	2'	9'	6'	22
36"	24'	16'	3 1/2'	2'	2'	9 1/2'	7'	33

NOT TO SCALE

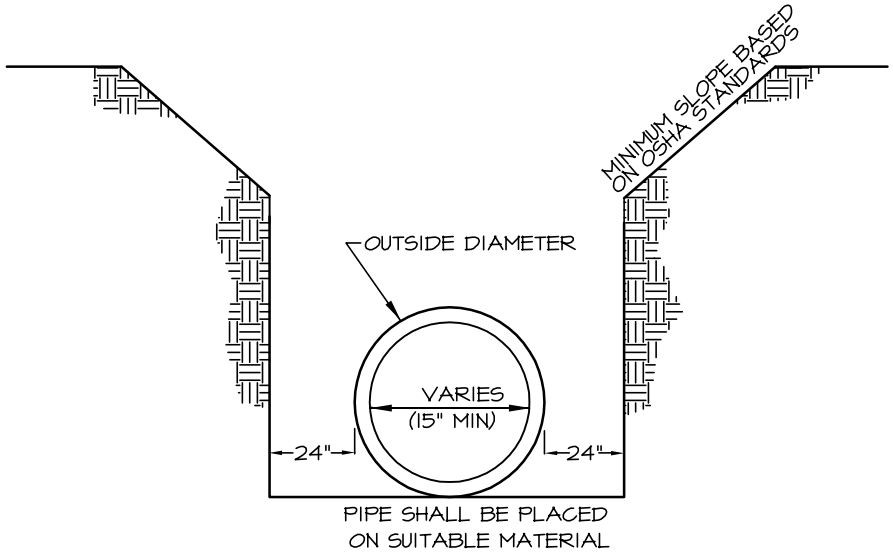
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RIP RAP PLUNGE POOL

STD. NO.	REV.
20.24	

NOTES:

1. A MINIMUM OF 24" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTION OF FILL MATERIAL. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE PLACED IN LAYERS NOT TO EXCEED 6". UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY. EACH AND EVERY LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY COMPACTED INTO PLACE.
2. ALL BACKFILL MATERIAL SHALL HAVE AN IN PLACE COMPACTED DENSITY OF 95% STANDARD PROCTOR.
3. THE FINAL 2' BELOW FINISHED GRADE SHALL BE 100%.
4. ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS.
5. BACKFILL MATERIAL BENEATH ROADWAY SHALL BE SELECT BACKFILL MATERIAL.

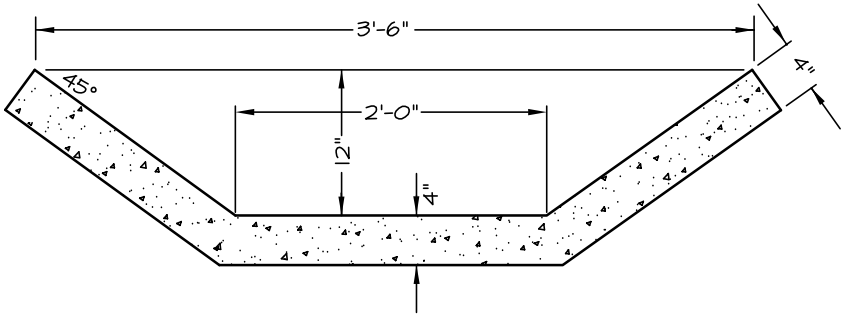


NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TRENCH DETAIL FOR STORM DRAIN

STD. NO.	REV.
20.25	



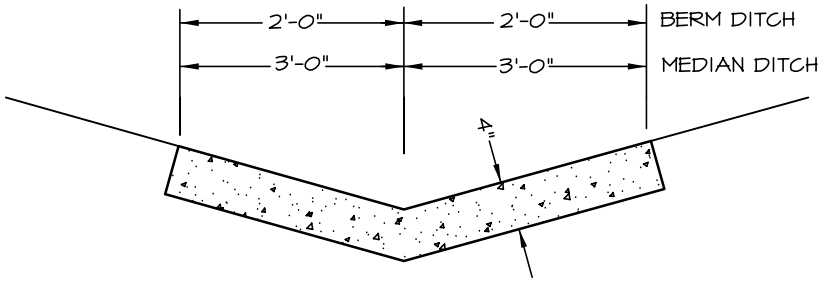
SLOPE DRAIN, BASE DITCH OR BERM DRAINAGE OUTLET DITCH

GENERAL NOTES:

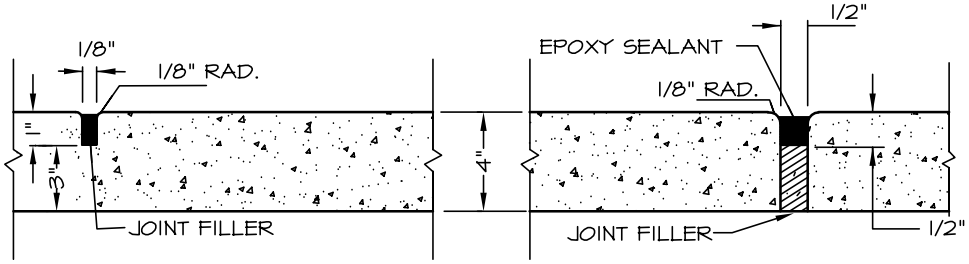
IN THE 4" CONCRETE PAVED DITCHES PLACE 1/2" EXPANSION JOINT AT 30 FT INTERVALS AND AT ALL OTHER POINTS WHERE PROPOSED DITCHES ABUT RIGID OBJECTS. PLACE GROOVED JOINTS 1" DEEP AT 10' INTERVALS BETWEEN EXPANSION JOINTS.

WIDTH AND SHAPE OF PROPOSED 4" CONCRETE PAVED DITCHES SHALL BE AS SHOWN OR AS DIRECTED BY THE ENGINEER.

ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.

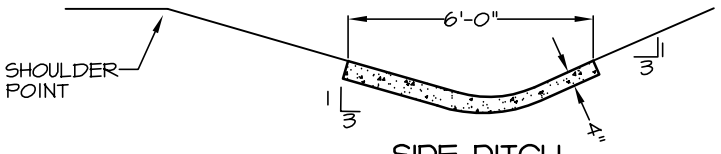


MEDIAN OR BERM DITCH

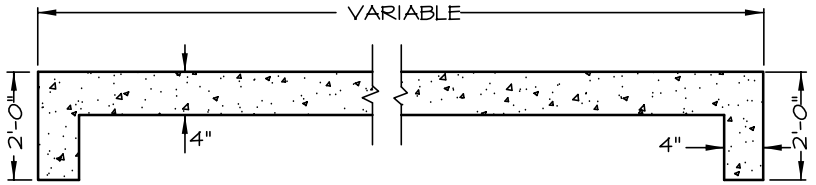


SHOWING GROOVED JOINT

SHOWING EXPANSION JOINT



SIDE DITCH



LONGITUDINAL SECTION OF PAVED DITCH

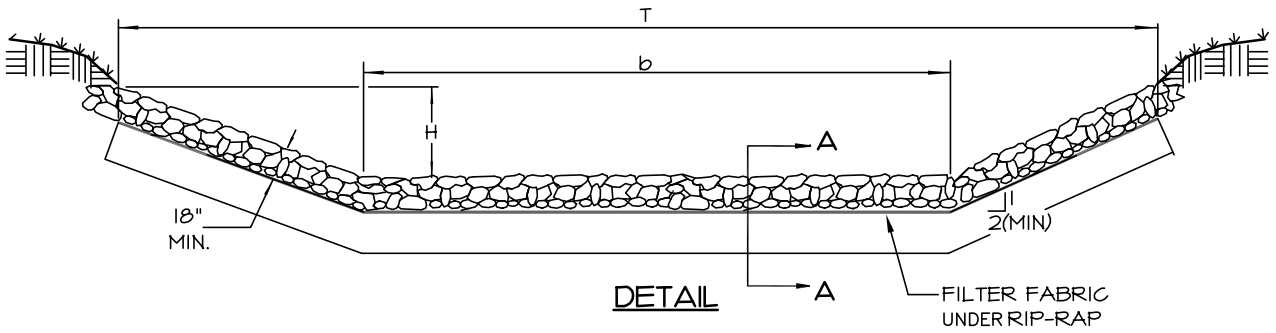
SHOWING 2'-0" CURTAIN WALL REQUIRED AT EACH END

NOT TO SCALE

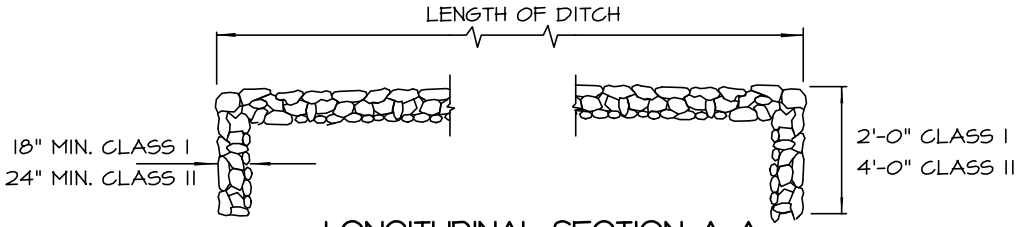
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CONCRETE PAVED DITCHES

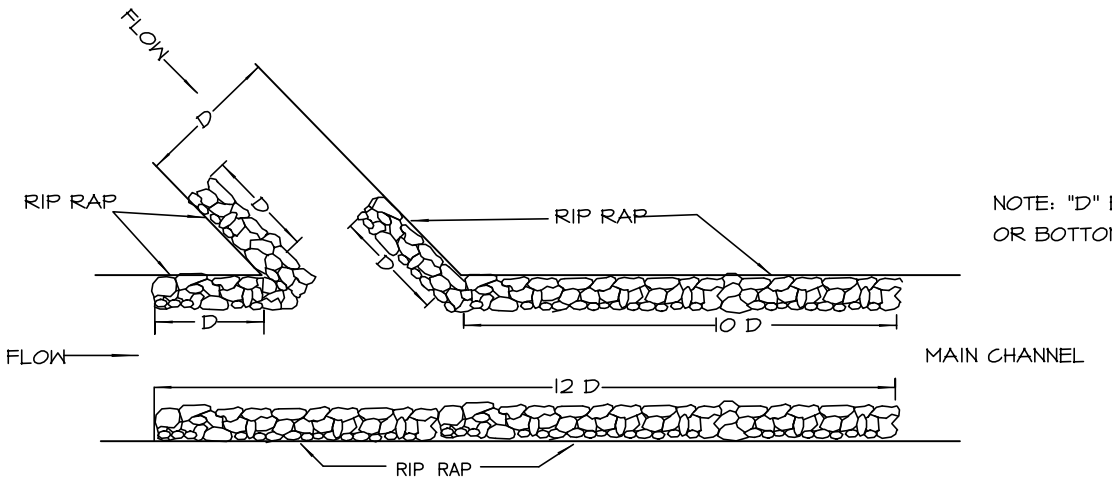
STD. NO.	REV.
20.26	



DETAIL



LONGITUDINAL SECTION A-A



CHANNEL INTERSECTIONS

GENERAL NOTES:

1. IF BEDROCK IS ENCOUNTERED WITHIN THE LIMITS OF THE TOEWALL, BEGIN TOEWALL ON THE BEDROCK OR AS DIRECTED BY THE ENGINEER.
2. WHERE ONLY ONE SIDE REQUIRES RIP RAP CLASS I OR II, LIST STATION AND SIDE OF SAME.
3. CHANNEL AND RIP RAP SIZE TO BE DESIGNED BY THE ENGINEER.
4. DEPENDING ON SOIL CONDITIONS, WASHED STONE AND FILTER FABRIC MAY BE NECESSARY UNDER RIP RAP.
5. CHANNEL DEPTH "H" SHALL INCLUDE A MINIMUM 6" OF FREEBOARD.

NOTE: "D" EQUALS DIAMETER OF PIPE OR BOTTOM WIDTH OF CHANNEL.

NOT TO SCALE

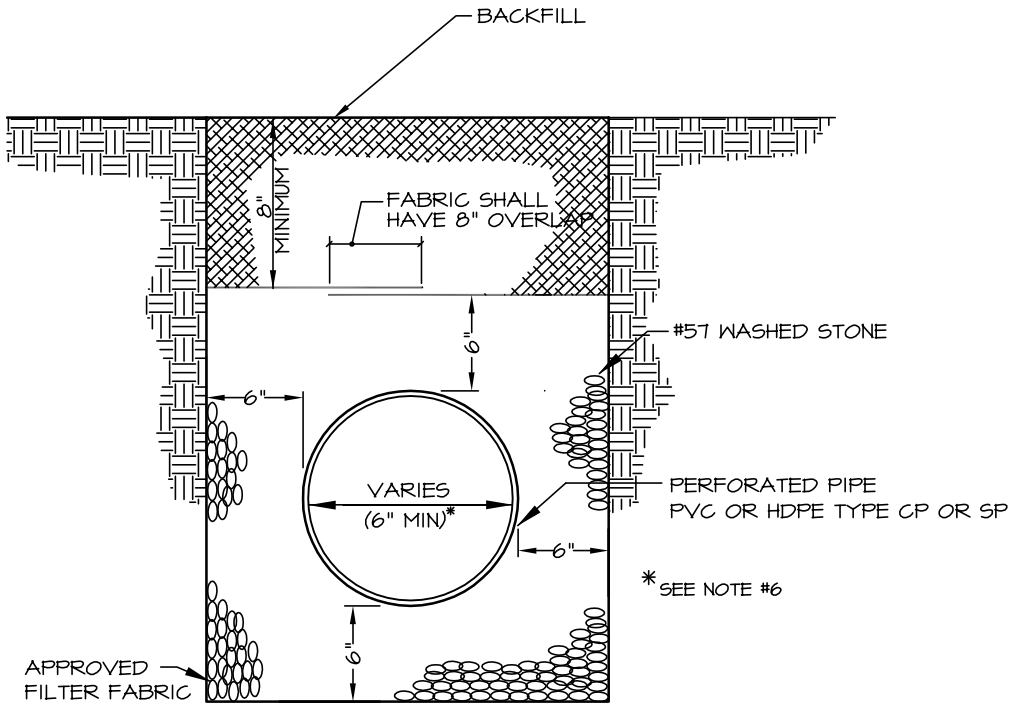
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

RIP RAP DITCHES

STD. NO.	REV.
20.27	

NOTES:

1. A MINIMUM OF 6" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR WASHED STONE. THE METHOD OF COMPACTING BACKFILL MATERIAL IS SUBJECT TO APPROVAL BY THE TOWN ENGINEER. AN APPROVED FILTER FABRIC SHALL BE PLACED AROUND STONE AND OVERLAPPED 8" AT TOP WITHIN STREET RIGHT OF WAY.
2. SUBDRAIN IS TO BE A MINIMUM 6" DIAMETER PERFORATED PIPE, USE SCHEDULE 40 PVC PER ASTM D1785 OR HDPE PER AASHTO M252, TYPE CP (SINGLE-WALL, CORRUGATED) OR TYPE SP (DOUBLE-WALL, SMOOTH INTERIOR).
3. OUTLET PIPE FROM SUBDRAIN SHALL BE NON-PERFORATED UNDER PAVEMENT (INCLUDING SIDEWALKS AND DRIVEWAYS). SEE SITE PLAN FOR SLOPE OF SUBDRAIN AND TIE IN TO STORM DRAINAGE.
4. THE OUTLET PIPES SHALL BE SCHEDULE 40 (MIN.) PVC PER ASTM D2665 OR HDPE PER AASHTO M252, TYPE S (DOUBLE WALL, SMOOTH INTERIOR) UNDER ROADWAYS.
5. FILTER FABRIC SHALL BE AN APPROVED, TYPE 2 WATER PERMEABLE, SYNTHETIC FABRIC.
6. A MINIMUM 4" DIAMETER SUBDRAIN MAY BE USED IN PLANTING AREAS AS DESCRIBED IN THE SLDSM 4000 SERIES.
7. CLEAN-OUTS ARE RECOMMENDED AT ALL PIPE INTERSECTIONS AND AT A 100' MAXIMUM SEPARATION.
8. SUBDRAIN INVERTS AT CATCH BASINS SHOULD BE INSTALLED ABOVE THE BOTTOM TO AVOID SURCHARGE OF SUBDRAIN SYSTEM.
9. ALL SUBDRAINS WILL TIE INTO A STANDARD DRAINAGE STRUCTURE OR DAYLIGHT TO THE SURFACE WHERE APPROPRIATE.



SPECIAL NOTE:

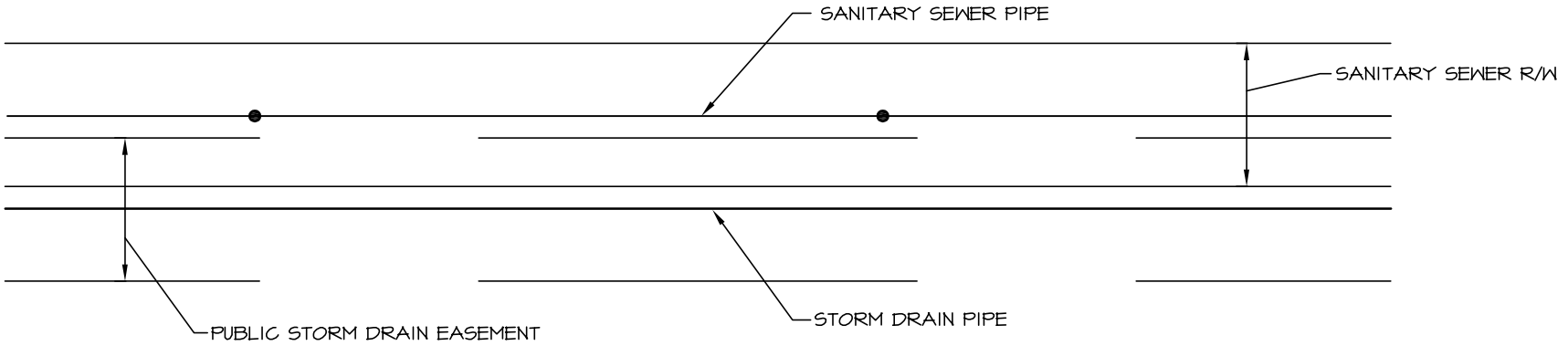
PREFABRICATED DRAINAGE MAY BE USED WITH APPROVAL OF CITY ENGINEER.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

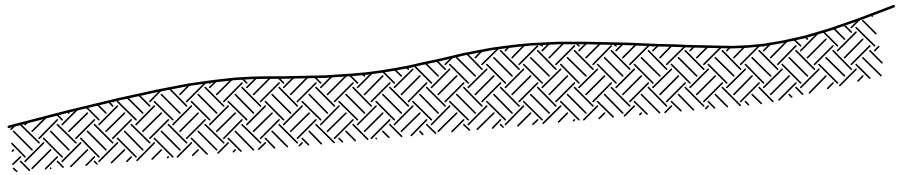
SUBDRAIN DETAIL

STD. NO.	REV.
20.28	

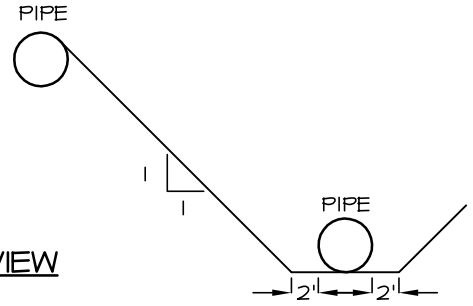


THE SANITARY SEWER AND STORM DRAINAGE EASEMENTS MAY OVERLAP, HOWEVER THE PIPE AND ASSOCIATED STRUCTURES MUST NOT BE IN THE OTHER UTILITY'S RIGHT OF WAY. THE SANITARY SEWER EASEMENT WIDTHS SHALL BE AS OUTLINED IN AGENCY'S DESIGN MANUAL. THIS DETAIL DOES NOT APPLY TO STORM DRAINAGE UTILIZING OPEN CHANNEL FLOW.

PLAN VIEW



THE VERTICAL SEPARATION GUIDELINE WILL BE USED UP TO THE POINT WHERE THE TWO RIGHTS OF WAY ADJOIN EACH OTHER.



PROFILE VIEW

THE SANITARY SEWER AND STORM DRAINAGE PIPES MUST BE NO CLOSER TOGETHER HORIZONTALLY THAN THE VERTICAL DISTANCE BETWEEN THE TOP OF THE HIGHER PIPE AND THE BOTTOM OF THE LOWER PIPE. A MAINTENANCE CREW MUST BE ABLE TO DIG DOWN TO THE LOWER PIPE SLOPING THE DITCH ON A 1:1 SLOPE UP FROM THE REQUIRED TRENCH BOTTOM WIDTH AND NOT EXPOSE THE HIGHER PIPE.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

OVERLAPPING STORM DRAINAGE/SANITARY SEWER EASEMENTS

STD. NO.	REV.
20.29	

GENERAL NOTES:

1. FOR OPEN CHANNELS THE MINIMUM EASEMENT MUST CONTAIN THE WIDTH OF THE STREAM FROM TOP OF BANK TO TOP BANK.
2. WIDER EASEMENT WIDTHS MAY BE REQUIRED FOR PIPE DEPTHS GREATER THAN TEN FEET.
3. PIPE SYSTEMS AND OPEN CHANNELS ON PRIVATE PROPERTY SHALL BE PLACED IN A STORM DRAINAGE EASEMENT.
4. THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE. ANY STRUCTURES OR OBSTRUCTIONS TO STORM WATER FLOW IS PROHIBITED.
5. MAINTENANCE OF STORM DRAINAGE EASEMENTS (SDE) OUTSIDE THE RIGHT-OF-WAY IS NOT THE RESPONSIBILITY OF THE TOWN OF STALLINGS.
6. ALL OPENINGS (DOORS, WINDOWS, ETC.) ON STRUCTURES ON A LOT SHALL BE LOCATED A MINIMUM OF ONE FOOT ABOVE THE ADJACENT FINISHED GROUND SURFACE (APPLIES TO LOTS WHICH MAY EXPERIENCE SIGNIFICANT OVERLAND FLOW NOT CONSIDERED IN THE 100 PLUS 1 FLOW ANALYSIS.

EASEMENT REQUIREMENTS FOR
OPEN STORM DRAINAGE CHANNELS

CUBIC FEET PER SECOND IN 100-YEAR STORM	EASEMENT WIDTH
5 -16 CFS	30' CENTERED
17 - 70 CFS	60' CENTERED
> 70 CFS	100' PLUS WIDTH OF CHANNEL CENTERED

EASEMENT REQUIREMENTS
ENCLOSED STORM DRAINAGE

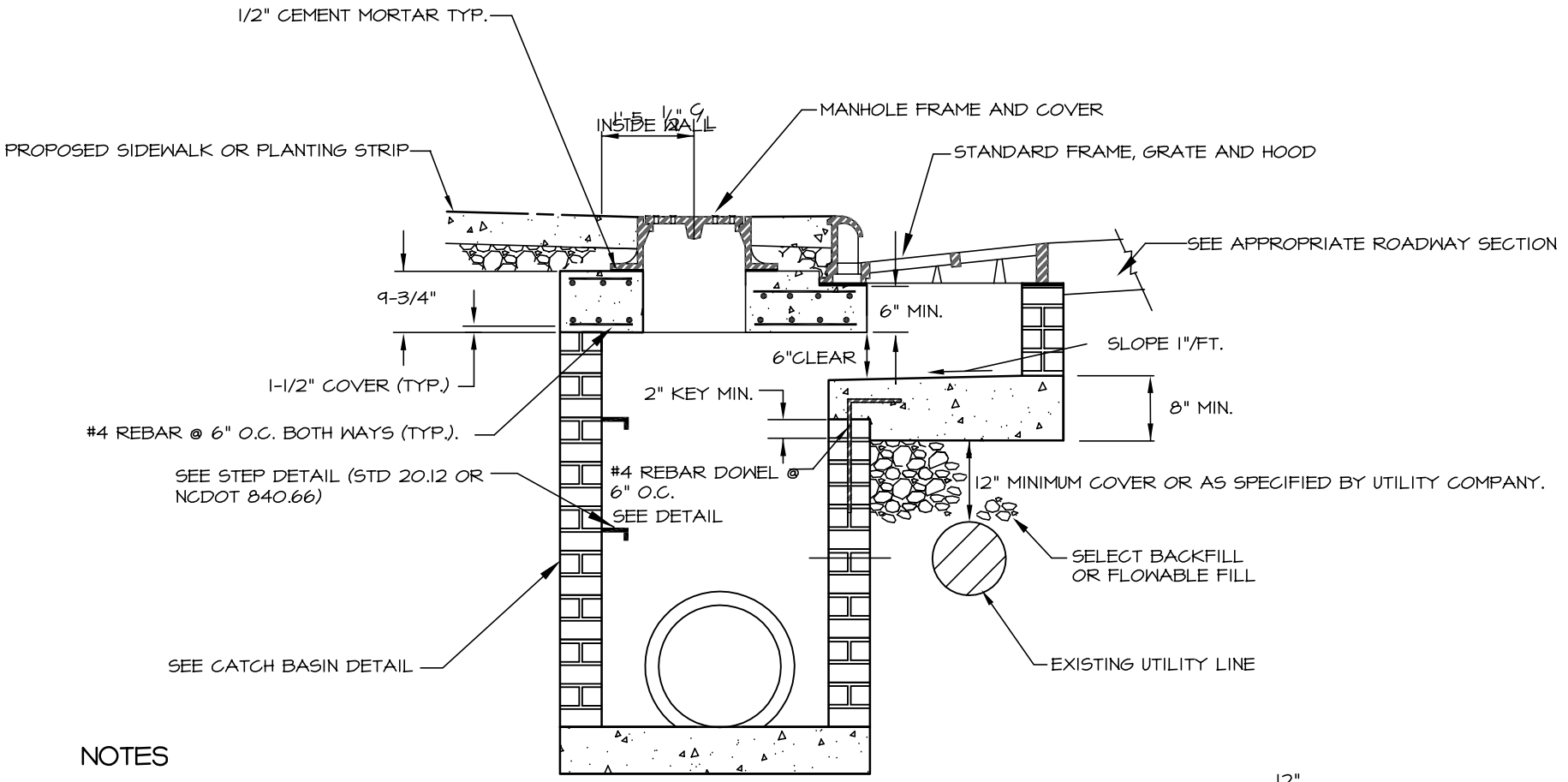
PIPE SIZE	EASEMENT REQUIREMENT
UP TO 15"	15' CENTERED
16" TO 36"	20' CENTERED
> 36"	30' CENTERED

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

MINIMUM DRAINAGE EASEMENT REQUIREMENTS FOR STORM DRAIN PIPES AND OPEN CHANNELS

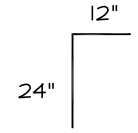
STD. NO.	REV.
20.30	



NOTES

1. PRIOR APPROVAL FROM THE TOWN ENGINEER IS REQUIRED.
2. THIS STRUCTURE IS TO ONLY BE USED ON TOWN MAINTAINED STREETS AND NOT ON NCDOT STREETS WITHOUT THEIR PERMISSION.

OFFSET CATCH BASIN EXISTING UTILITY CONFLICT



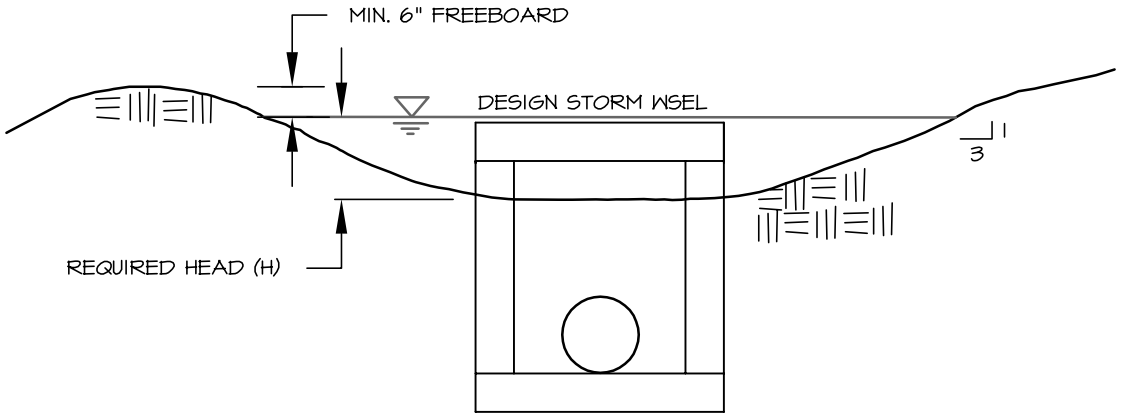
DOWEL DETAIL

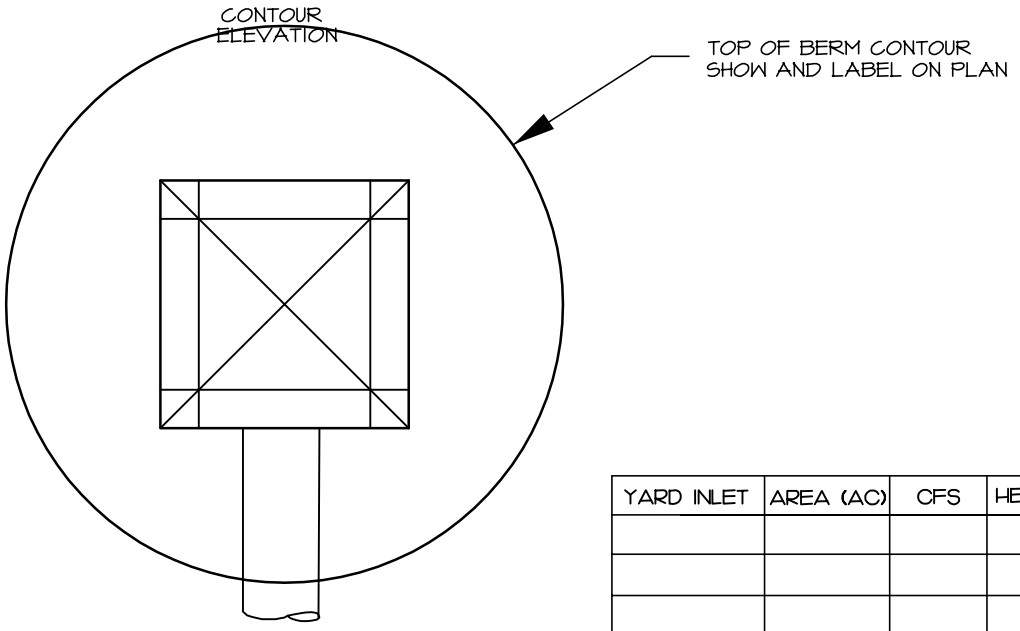
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

OFFSET CATCH BASIN

STD. NO.	REV.
20.34	





YARD INLET	AREA (AC)	CFS	HEAD H (FT)	COMMENT

NOT TO SCALE

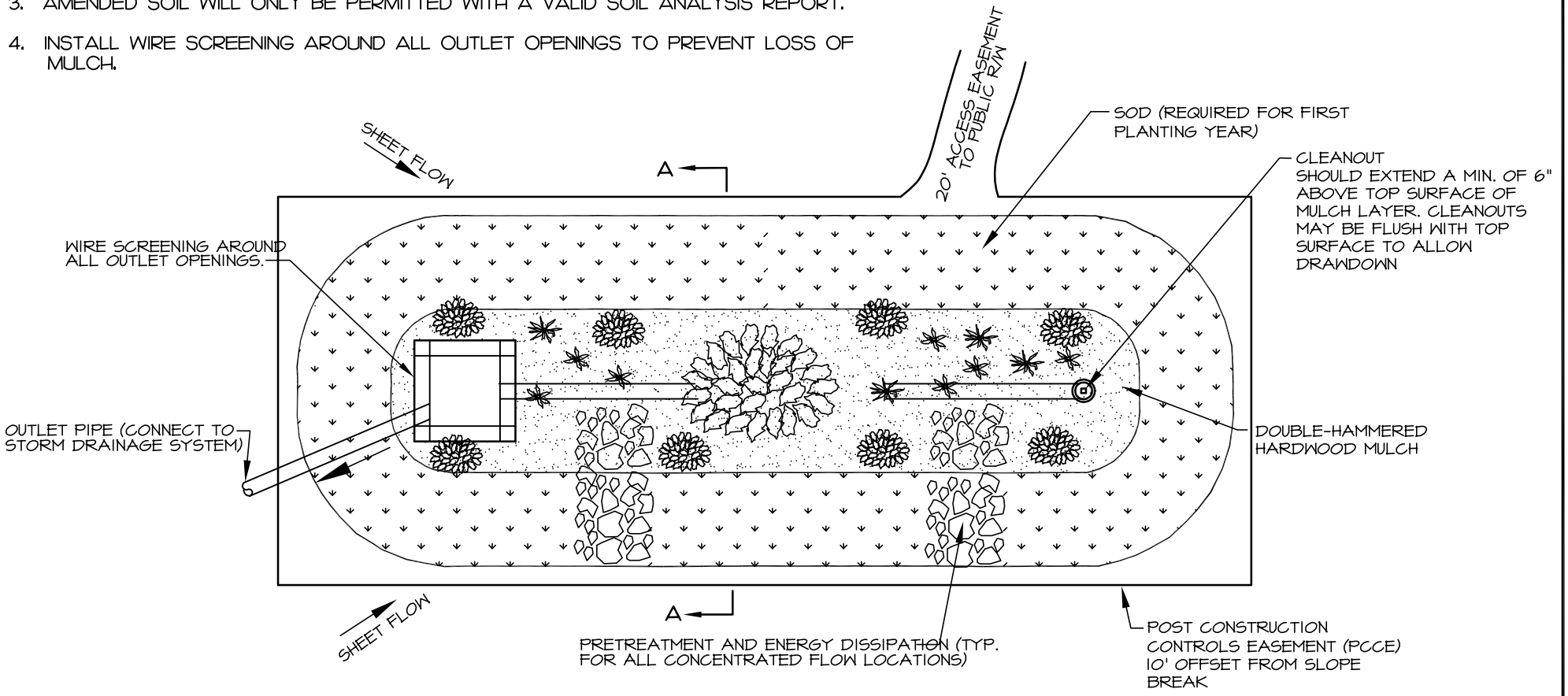
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

GRADING AT DROP INLET

STD. NO.	REV.
20.35	

NOTES:

1. ALL BIORETENTION SHALL HAVE A MINIMUM 20 FOOT ACCESS EASEMENT CONNECTING TO A DEDICATED PUBLIC RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX. CROSS-SLOPE 5%.
2. ALL DRAINAGE AREAS TO A BIORETENTION FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF AMENDED SOILS, MULCH OR PLANTINGS.
3. AMENDED SOIL WILL ONLY BE PERMITTED WITH A VALID SOIL ANALYSIS REPORT.
4. INSTALL WIRE SCREENING AROUND ALL OUTLET OPENINGS TO PREVENT LOSS OF MULCH.



PLAN

NOT TO SCALE

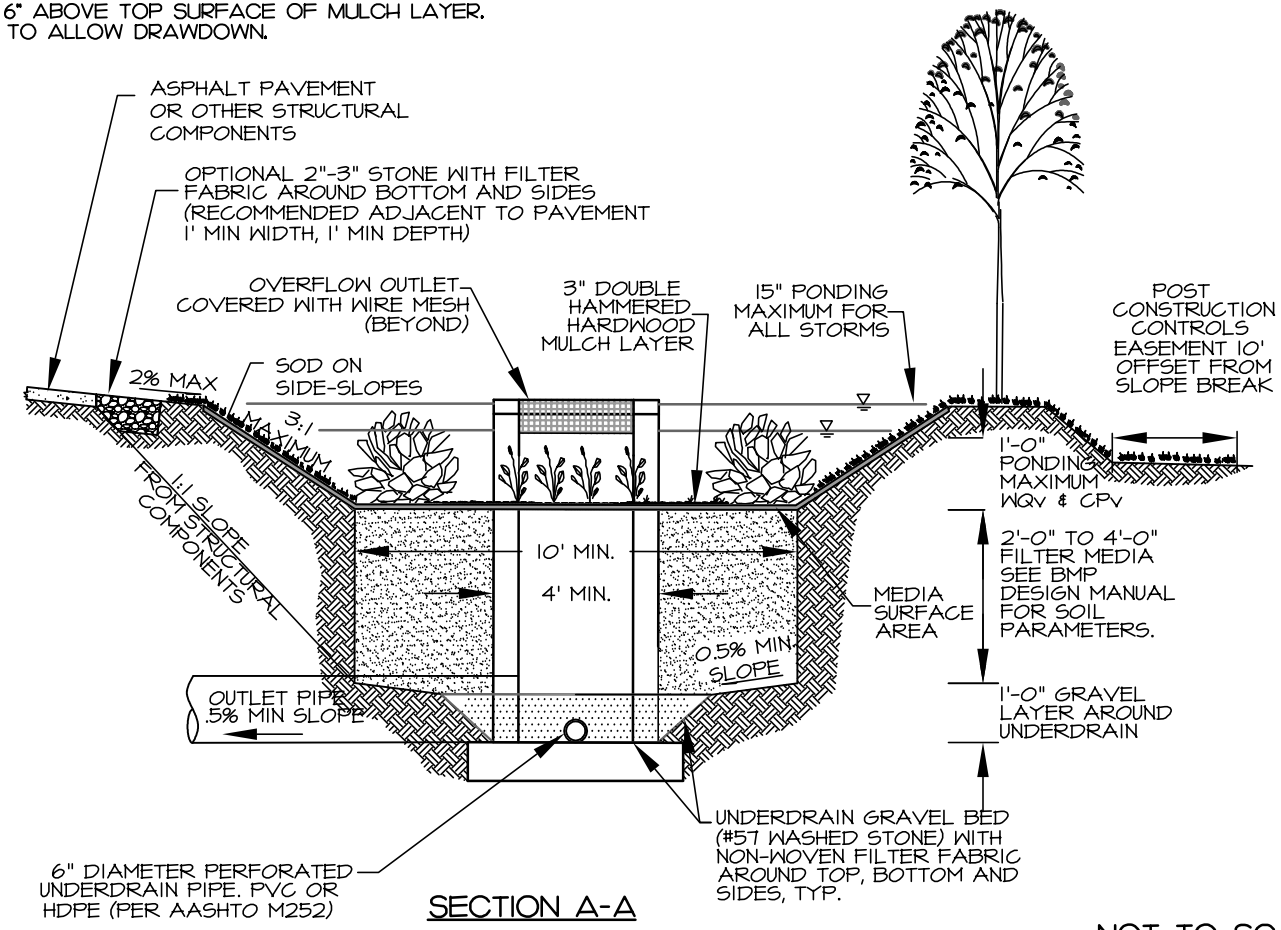
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BIORETENTION PLAN
BMP FIG. 4.1.2

STD. NO.	REV.
21.00	

NOTES:

1. ALL BIORETENTION FACILITIES SHALL HAVE A MINIMUM 20 FOOT ACCESS EASEMENT CONNECTING TO A DEDICATED PUBLIC RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX. CROSS-SLOPE 5%.
2. ALL DRAINAGE AREAS TO A BIORETENTION FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF AMENDED SOILS, MULCH OR PLANTINGS.
3. AMENDED SOIL WILL ONLY BE PERMITTED WITH A VALID SOIL ANALYSIS REPORT. NO AMENDED SOIL SHALL BE ALLOWED ON THE SIDE SLOPES.
4. INSTALL WIRE SCREENING AROUND ALL OUTLET OPENINGS TO PREVENT LOSS OF MULCH.
5. PVC UNDERDRAIN PIPE SHOULD HAVE 3/8" PERFORATIONS SPACED AT 6" CENTERS, MIN. 4 HOLES PER ROW. MAX SPACING OF UNDERDRAIN PIPE IS 10 FEET ON CENTER. HDPE SHALL ADHERE TO AASHTO M252 SPECS.
6. UNDERDRAIN CLEANOUTS SHOULD EXTEND A MIN. OF 6" ABOVE TOP SURFACE OF MULCH LAYER. CLEANOUTS MAY BE FLUSH WITH TOP OF SURFACE TO ALLOW DRAWDOWN.
7. ONLY SMALL MATURING TREES ARE ALLOWED TO BE PLANTED IN THE AMENDED SOILS.



SECTION A-A

NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

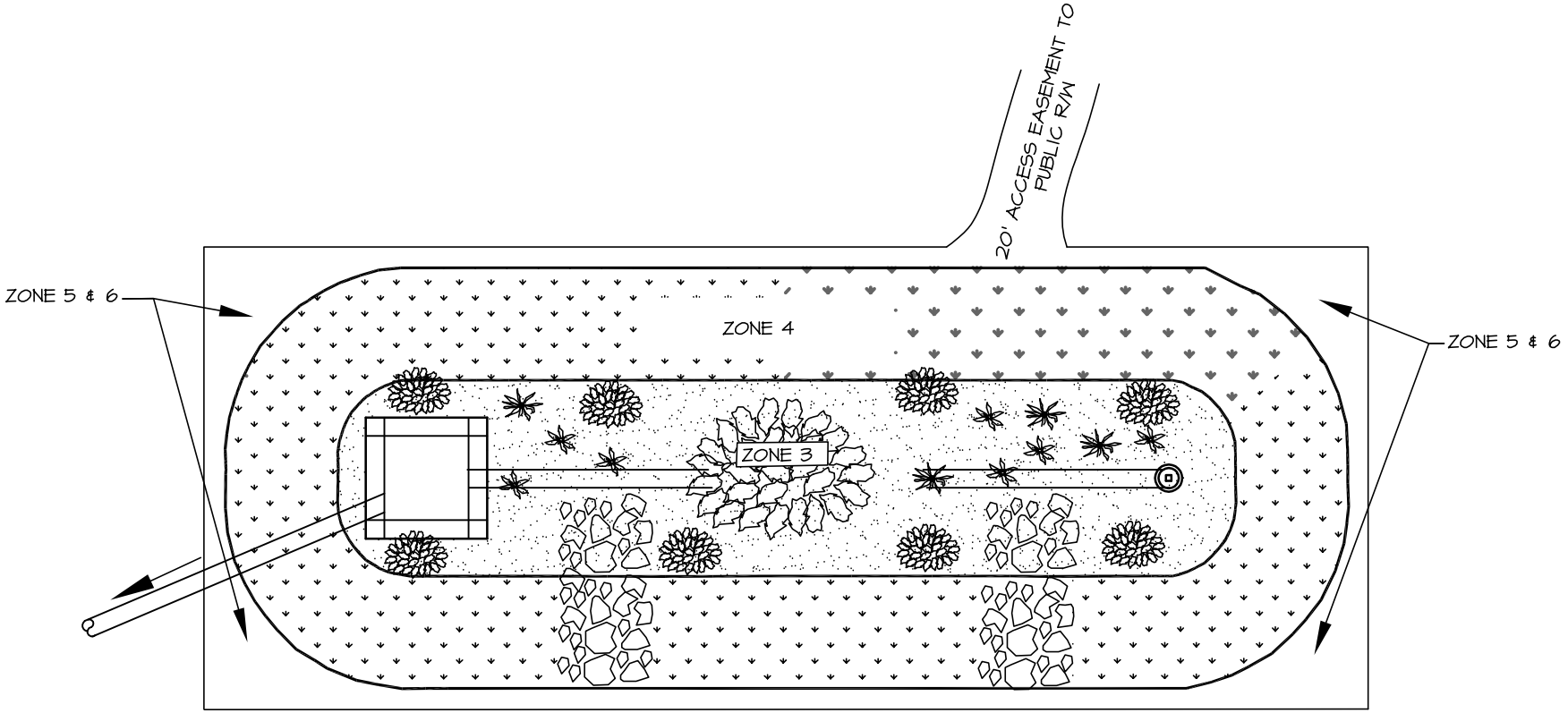
BIORETENTION CROSS-SECTION

BMP FIG. 4.1.3

STD. NO.	REV.
21.01	

NOTES:

1. PLANTING ZONES AND PLANT SELECTION PER THE BMP DESIGN MANUAL.
2. ALL PLANTINGS SHALL BE LOCAL NATIVE SPECIES.
3. IRRIGATION MAY BE PROVIDED FOR INITIAL ESTABLISHMENT AND DRY SEASONS.
4. ONLY SMALL MATURING TREES ARE ALLOWED TO BE PLANTED IN THE AMENDED SOILS.



PLAN

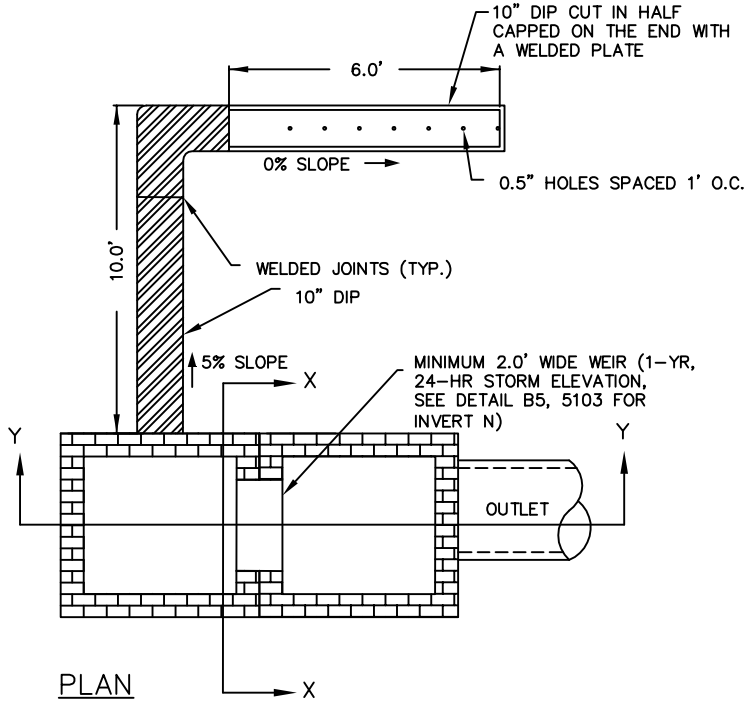
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

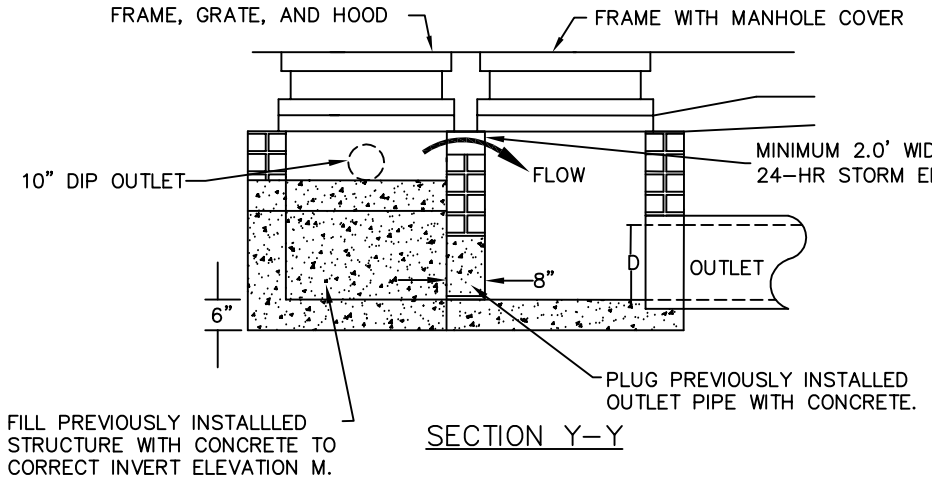
BIORETENTION PLANTING PLAN

BMP FIG. 4.1.4

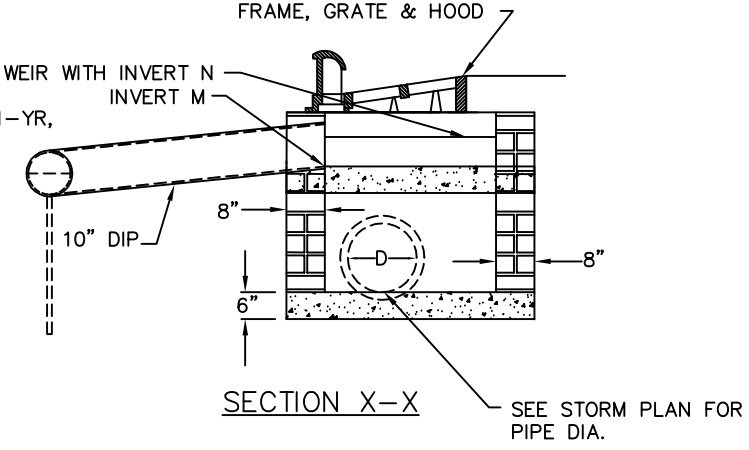
STD. NO.	REV.
21.02	



PLAN



SECTION Y-Y



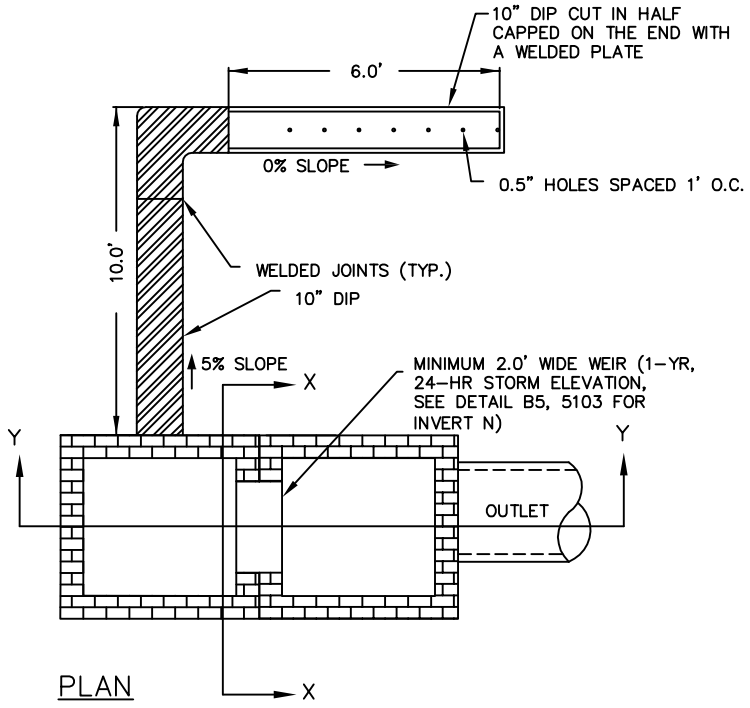
SECTION X-X

NOT TO SCALE

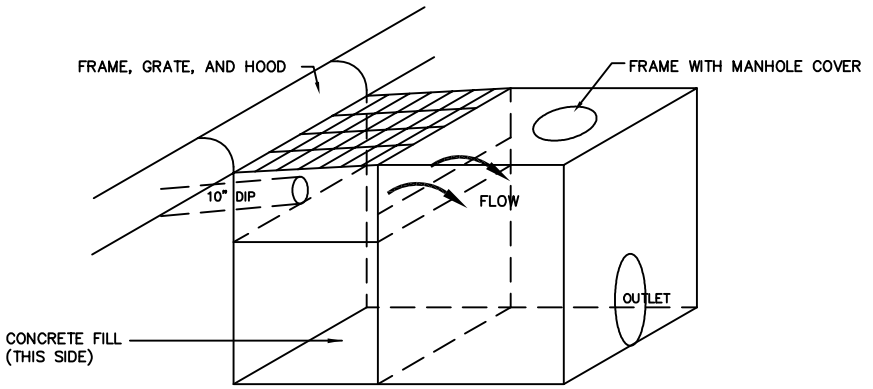
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

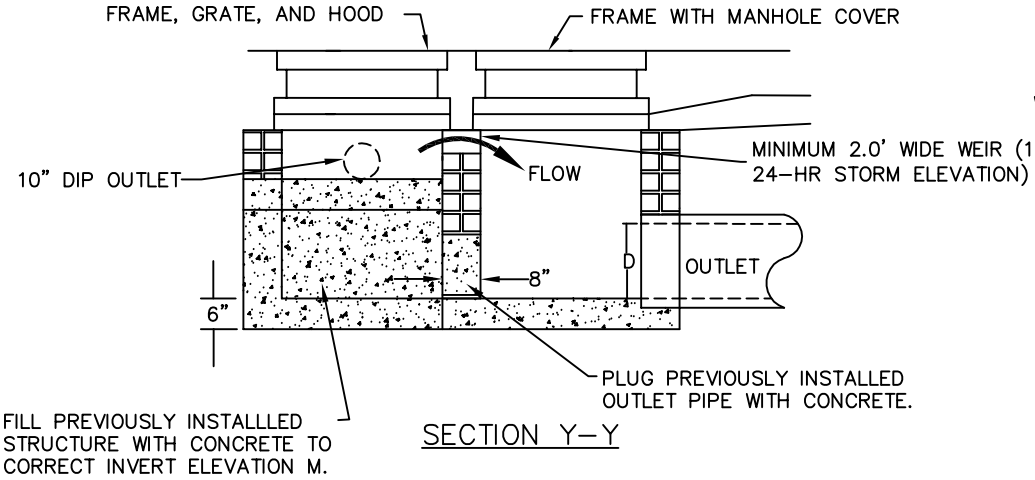
BIORETENTION ENERGY DISSIPATOR

STD. NO.	REV.
21.03	

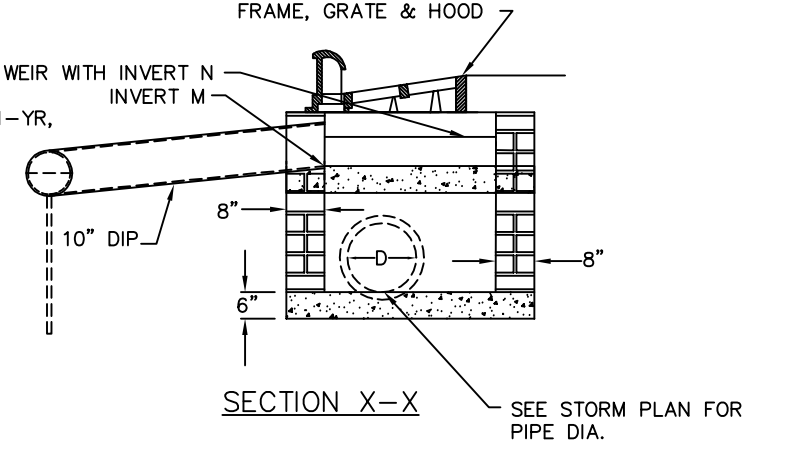


PLAN





SECTION Y-Y



SECTION X-X

NOT TO SCALE

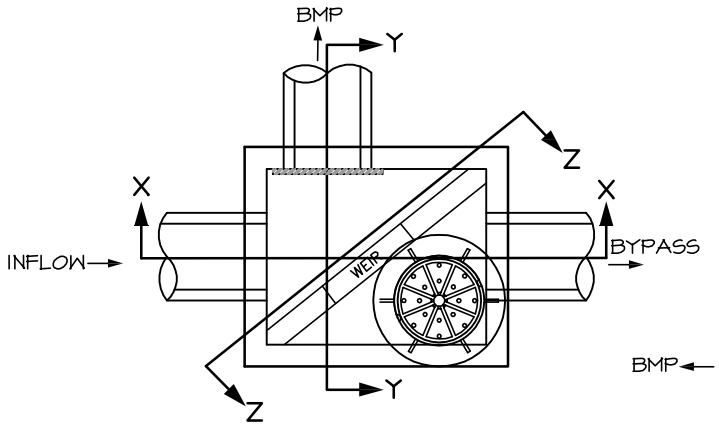
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BIORETENTION ENERGY DISSIPATOR

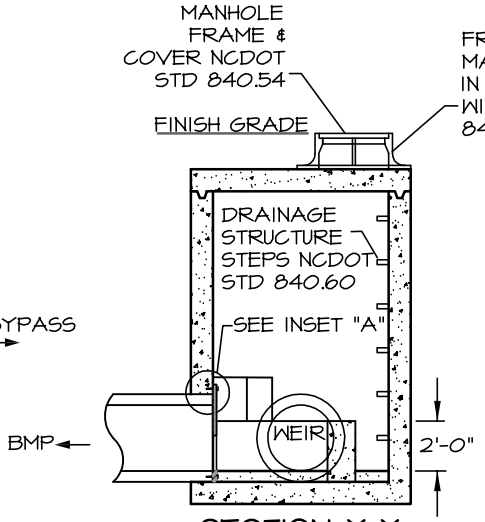
STD. NO.	REV.
21.03A	

NOTES

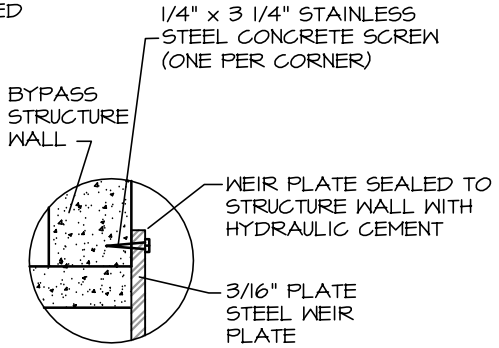
1. ALL CONCRETE SHALL BE 3600 PSI.
2. ALL JOINTS ARE TO BE SEALED WATER TIGHT.
3. WEIR IS TO BE POURED-IN-PLACE CONCRETE.
4. REFER TO NCDOT STANDARD DRAWINGS FOR BOX CONSTRUCTION.
5. NOT ACCEPTABLE FOR USE IN STREET RIGHT OF WAY WITHOUT TOWN/NCDOT APPROVAL.



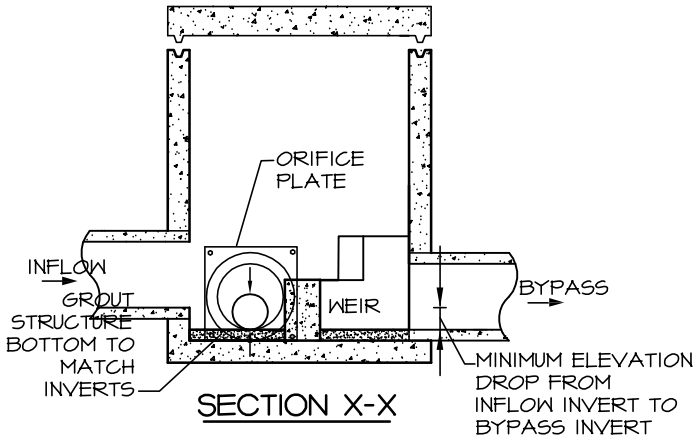
PLAN



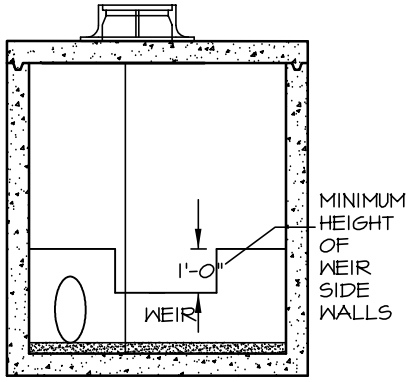
SECTION Y-Y



INSET "A"



SECTION X-X



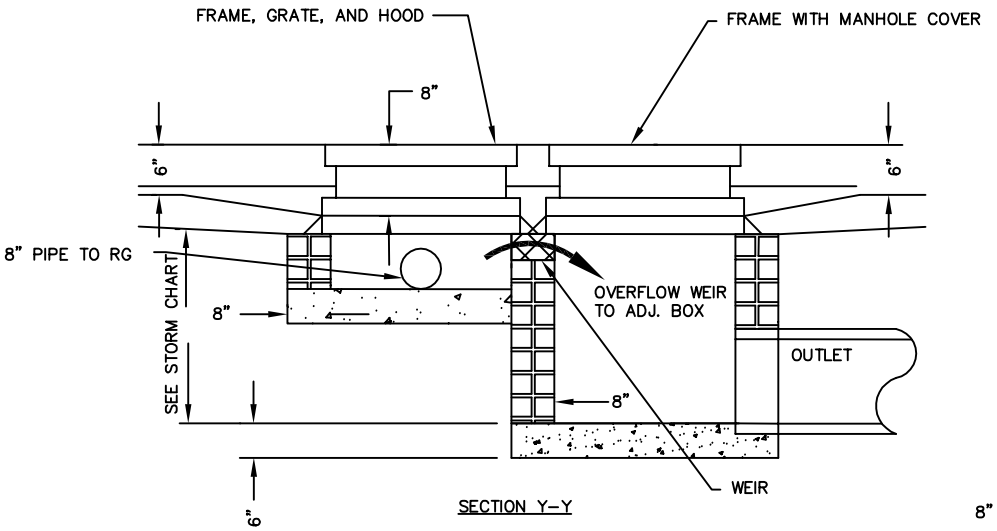
SECTION Z-Z

NOT TO SCALE

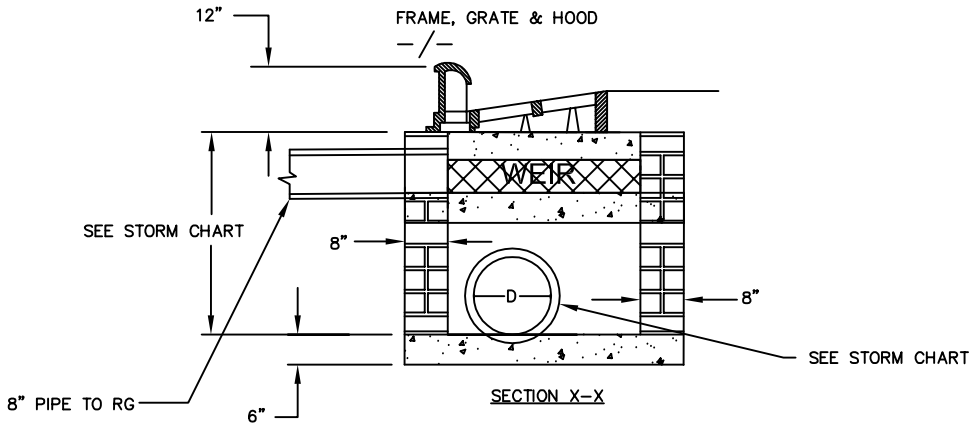
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

FLOW SPLITTER STRUCTURE
BMP FIG. 4.1.11

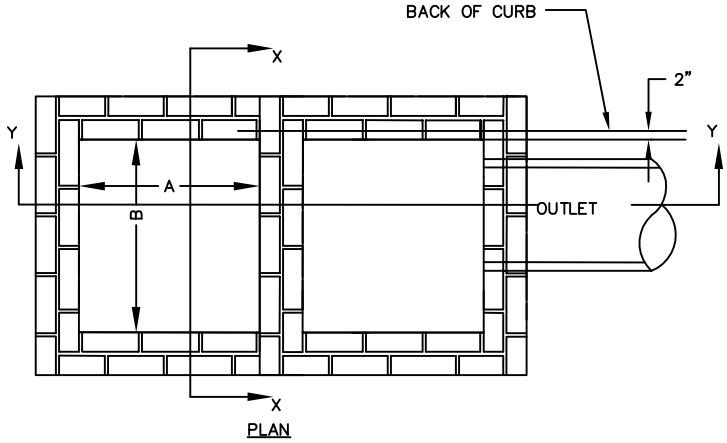
STD. NO.	REV.
21.04	



SECTION Y–Y



SECTION X–X



PLAN

GENERAL NOTES:

1. MORTAR JOINTS 1/2" +/– 1/8" THICK
2. ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.
3. PRECAST STRUCTURES MAY BE SUBSTITUTED AFTER APPROVAL BY TOWN ENGINEER.
4. ALL CATCH BASIN OVER 3'–6" IN DEPTH SHALL BE PROVIDED WITH STEPS 1'–2" ON CENTERS.
5. CONCRETE BRICK MAY BE USED IN LIEU OF HARD COMMON CLAY BRICK.
6. JUMBO BRICK WILL BE PERMITTED.
7. FOR 8'–0" IN HEIGHT OR LESS USE 8" WALL. OVER 8'–0" IN HEIGHT USE 12" WALL TO 6'–0" FROM TOP OF WALL, AND 8" WALL FOR THE REMAINING 6'–0".
8. FOR FRAME AND GRATE DETAIL SEE NCDOT STD. 840.03.
9. ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH THE INSIDE WALL, GROUTED AND BRUSHED SMOOTH.
10. WEEP HOLE(S) SHALL BE PLACED IN BACK WALL. A STONE DRAIN CONSISTING OF 1 (ONE) CUBIC FOOT OF NUMBER 78M STONE CONTAINED IN A BAG OF POROUS FABRIC SHALL BE PLACED AT WEEP HOLE.
11. BRICK SHALL BE BONDED WITH FULL HEADERS EVERY 3 COURSES.
12. SEE BOX DIMENSIONS ON STD. 20.04B.

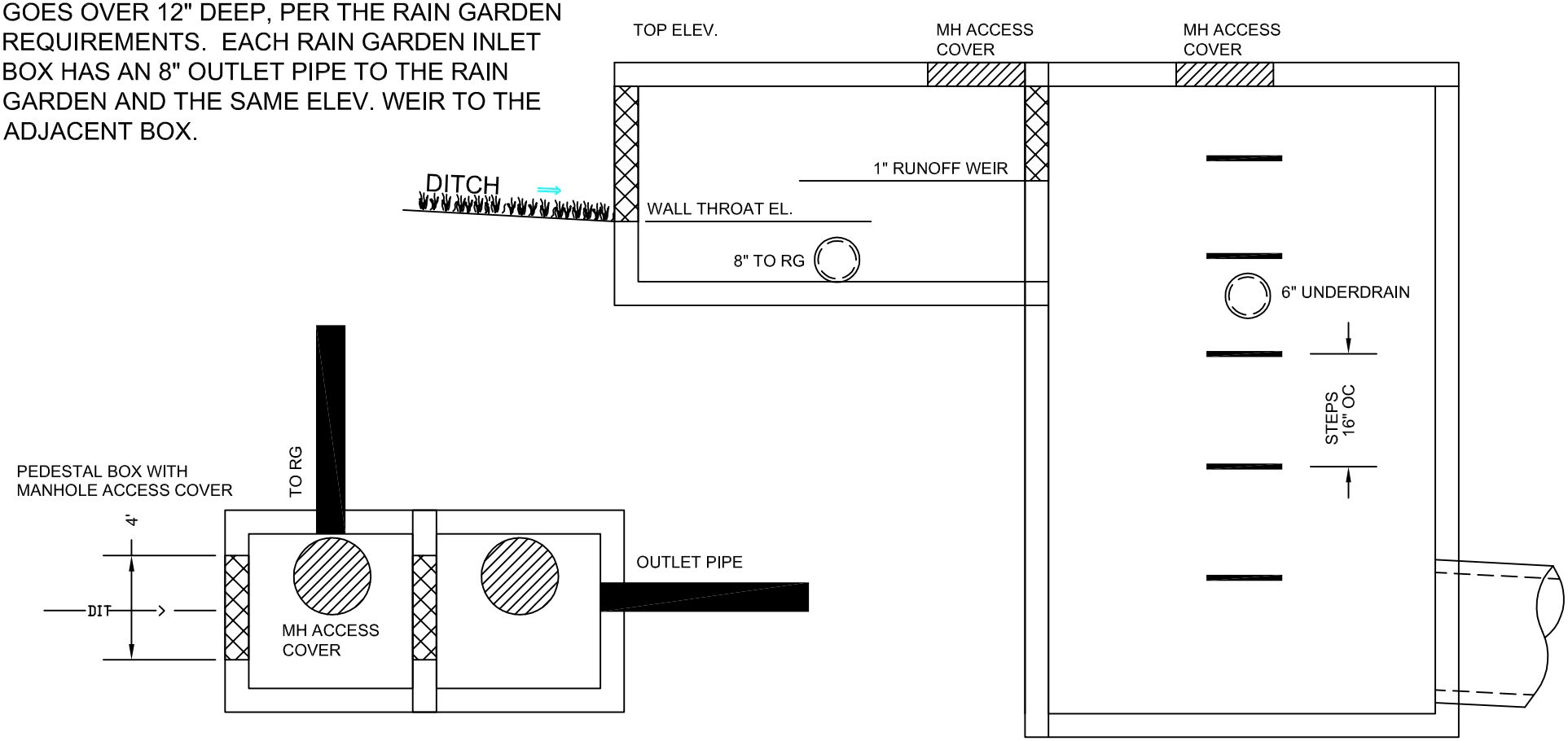
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ALTERNATE FLOW SPLITTER STRUCTURE

STD. NO.	REV.
21.04A	

BOX OUTLET TO RAIN GARDEN PASSES THE 1" RUNOFF TO THE RAIN GARDEN THRU THE 8" OUTLET PIPE AND THE REMAINDER OF THE FLOW FOR ALL OTHER STORMS GOES OVER THE INTERNAL WEIR INTO THE ADJACENT BOX. WATER LEVEL IN THE RAIN GARDEN AND THE CONTROL BOX ARE EQUALIZED AND NEVER GOES OVER 12" DEEP, PER THE RAIN GARDEN REQUIREMENTS. EACH RAIN GARDEN INLET BOX HAS AN 8" OUTLET PIPE TO THE RAIN GARDEN AND THE SAME ELEV. WEIR TO THE ADJACENT BOX.



NOT TO SCALE

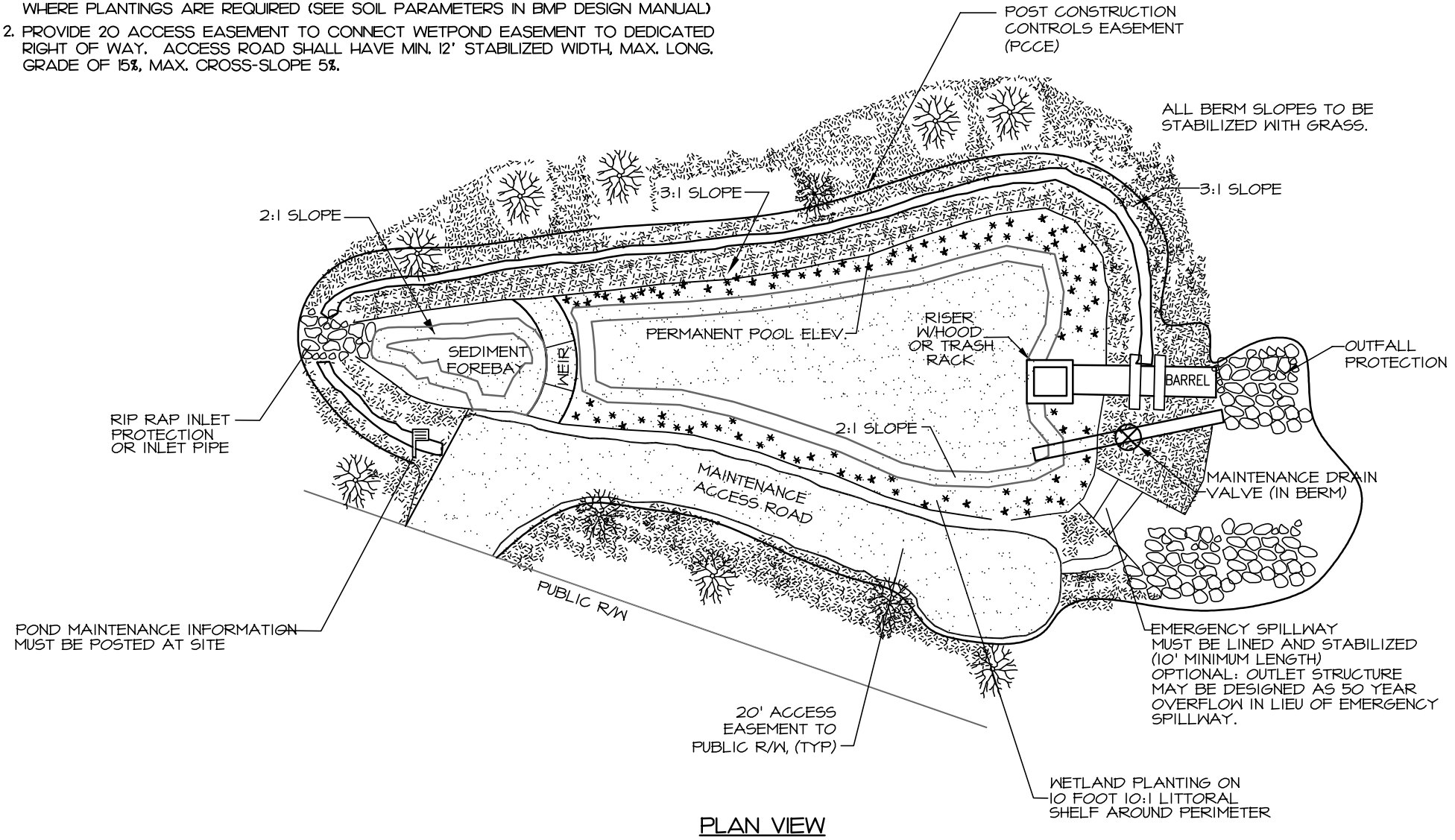
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ALTERNATE FLOW SPLITTER STRUCTURE

STD. NO.	REV.
21.04B	

NOTES

1. 4-6 INCH LAYER OF AMENDED SOIL IS RECCOMMENDED ON LITTORAL SHELF AREA WHERE PLANTINGS ARE REQUIRED (SEE SOIL PARAMETERS IN BMP DESIGN MANUAL)
2. PROVIDE 20 ACCESS EASEMENT TO CONNECT WETPOND EASEMENT TO DEDICATED RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX. CROSS-SLOPE 5%.



PLAN VIEW

NOT TO SCALE

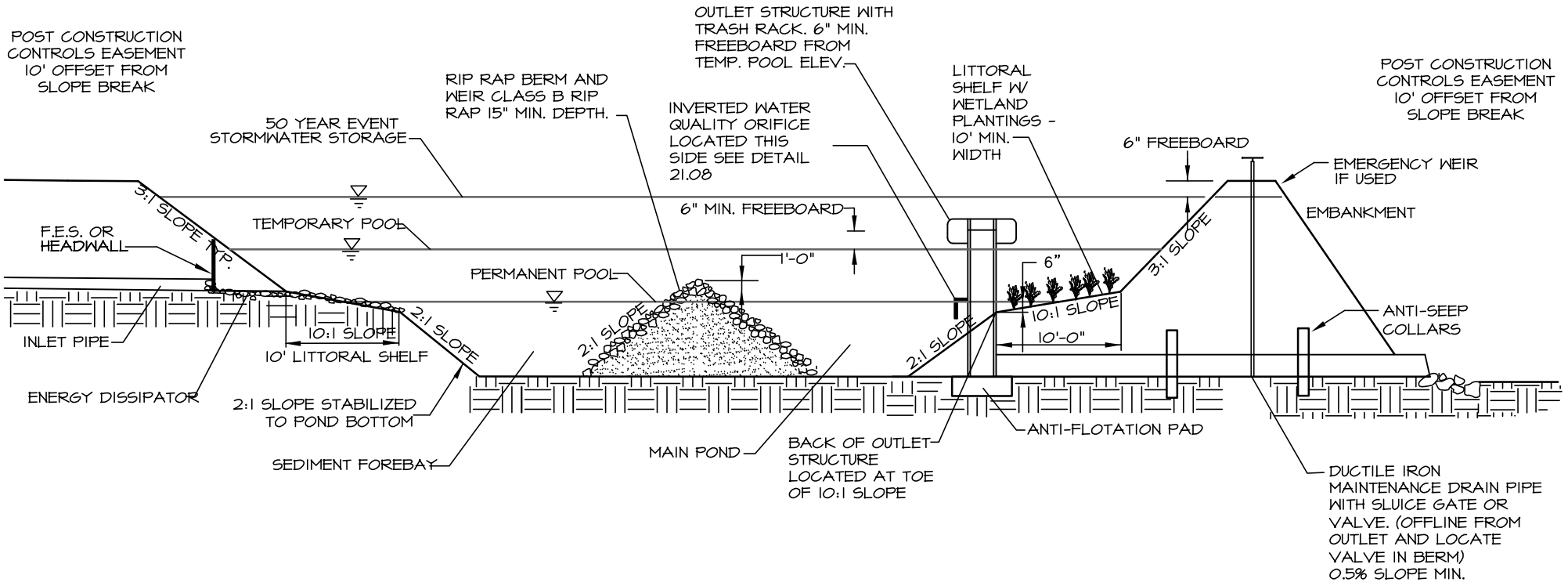
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETPOND PLAN
BMP FIG. 4.2.2

STD. NO.	REV.
21.05	

NOTES:

1. 4-6 INCH LAYER OF AMENDED SOIL IS RECOMMENDED IN ANY AREA WHERE PLANTINGS ARE REQUIRED (SEE BMP DESIGN MANUAL).

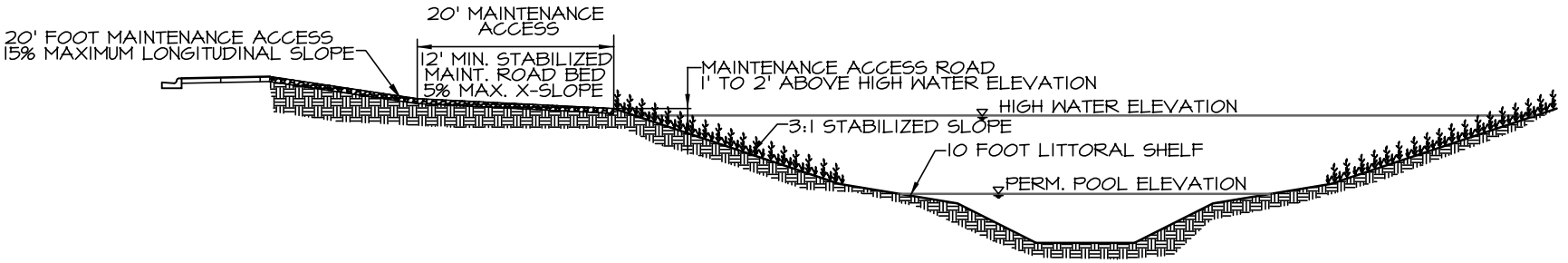


NOT TO SCALE

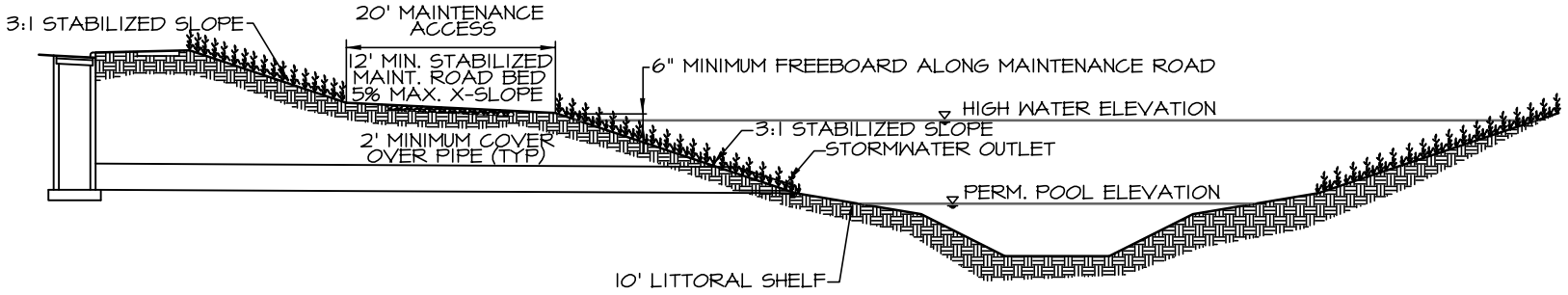
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETPOND PROFILE
BMP FIG. 4.2.2

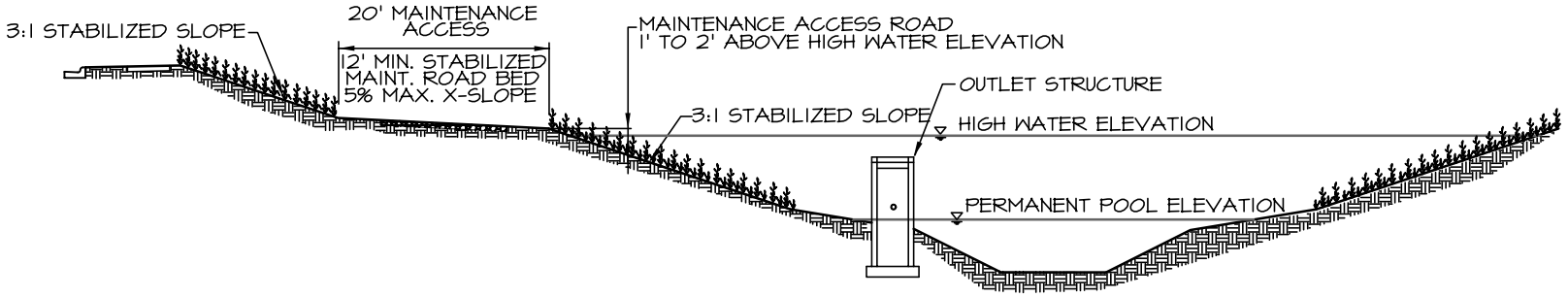
STD. NO.	REV.
21.06	



SECTION AT MAINTENANCE ROAD ACCESS AND FOREBAY



SECTION AT STORMWATER OUTFALL



SECTION AT OUTLET STRUCTURE

NOT TO SCALE

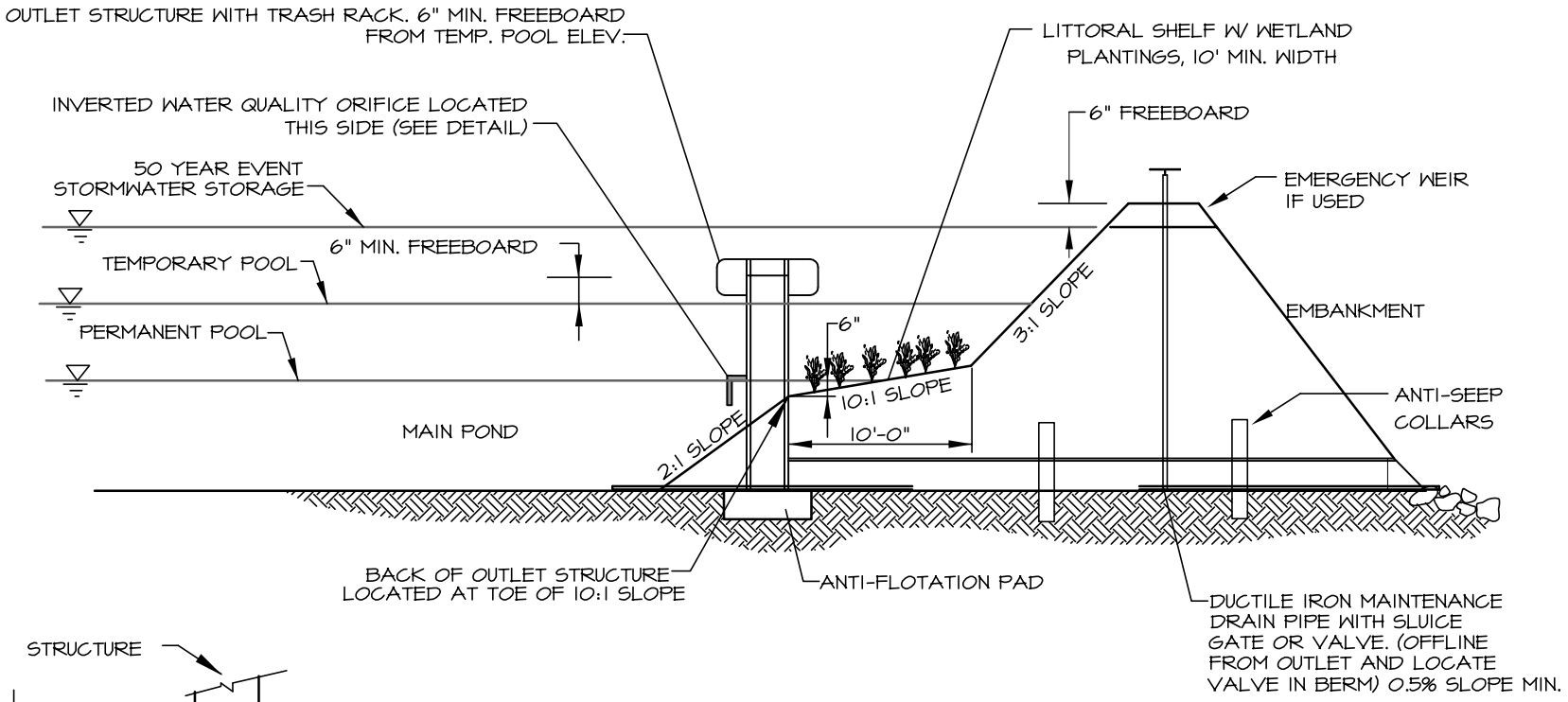
TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

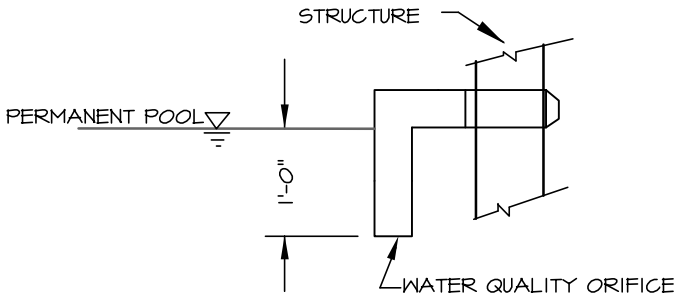
WETPOND CROSS SECTIONS

BMP FIG. 4.2.3

STD. NO.	REV.
21.07	



POND PROFILE



WATER QUALITY ORIFICE DETAIL

NOT TO SCALE

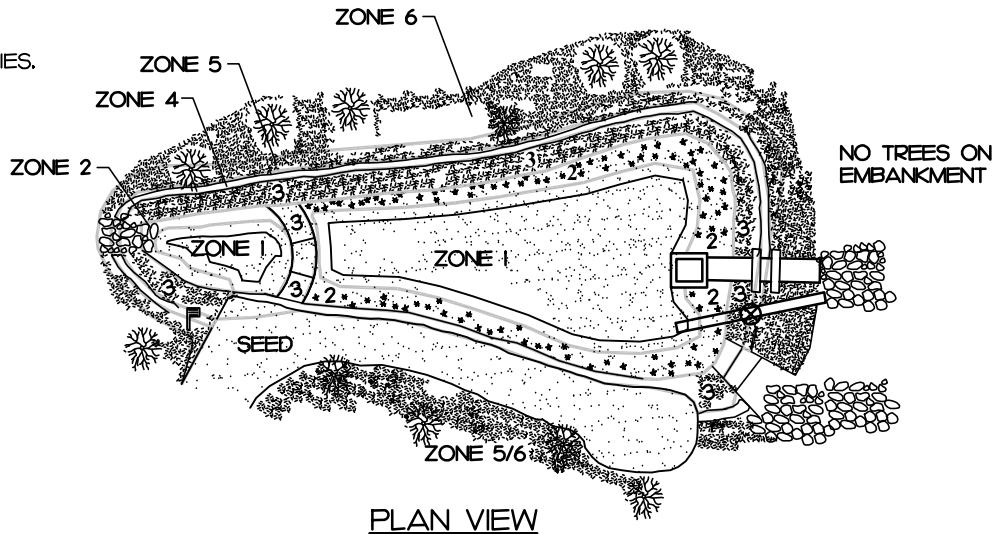
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETPOND
LITTORAL SHELF AND BERM DETAIL
BMP FIG. 4.2.4

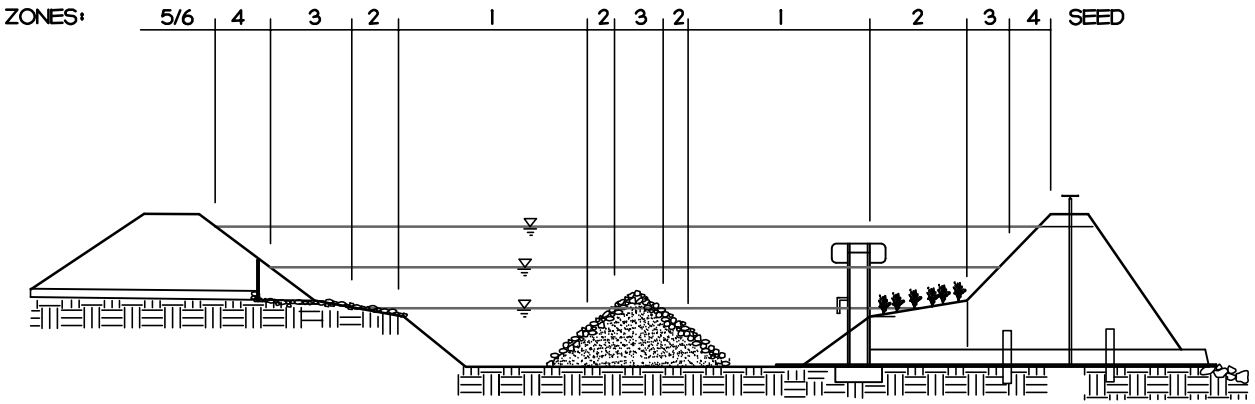
STD. NO.	REV.
21.08	

NOTES:

1. PLANTINGS ZONES AND PLANT SELECTION PER THE BMP DESIGN MANUAL
2. ALL PLANTINGS SHALL BE LOCAL NATIVE SPECIES.
3. IRRIGATION MAY BE PROVIDED FOR INITIAL ESTABLISHMENT AND DRY SEASONS.



PLAN VIEW



POND CROSS SECTION

NOT TO SCALE

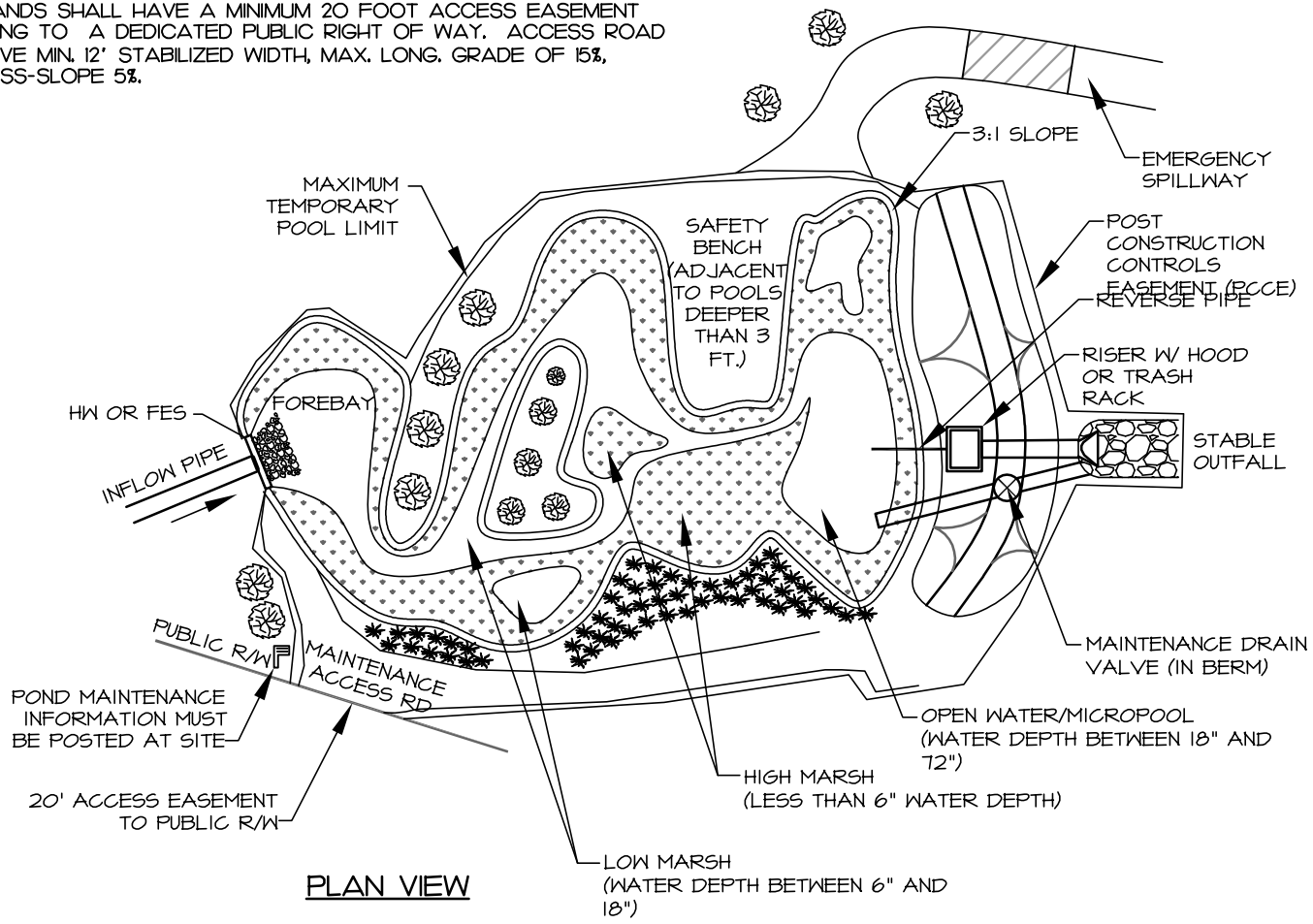
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETPOND PLANTING PLAN
BMP FIG. 4.2.5

STD. NO.	REV.
21.09	

NOTES

1. 4-6 INCH LAYER OF AMENDED SOIL IS REQUIRED ON ANY MARSH AREA WHERE PLANTINGS ARE REQUIRED (SEE SOIL PARAMETERS IN BMP DESIGN MANUAL)
2. PROVIDE 20' ACCESS EASEMENT TO CONNECT WETLAND EASEMENT TO DEDICATED RIGHT OF WAY.
3. ALL WETLANDS SHALL HAVE A MINIMUM 20 FOOT ACCESS EASEMENT CONNECTING TO A DEDICATED PUBLIC RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX. CROSS-SLOPE 5%.



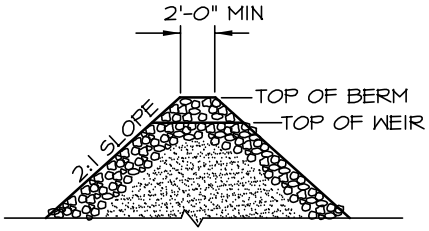
PLAN VIEW

NOT TO SCALE

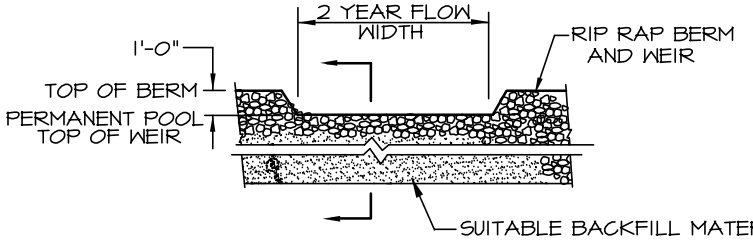
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETLAND PLAN
BMP FIG. 4.3.2

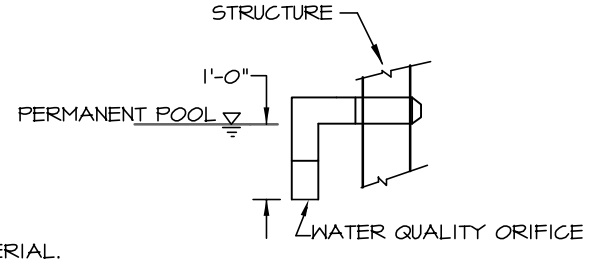
STD. NO.	REV.
21.10	



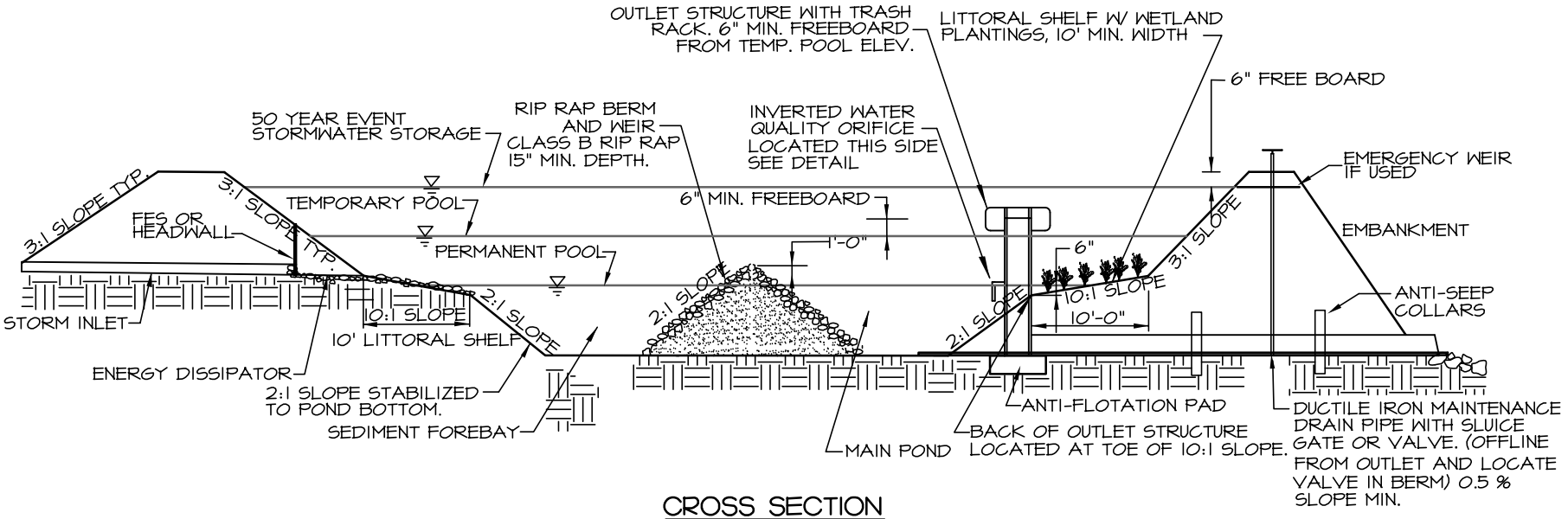
BERM AND WEIR SECTION



BERM AND WEIR DETAIL



WATER QUALITY ORIFICE DETAIL



CROSS SECTION

NOT TO SCALE

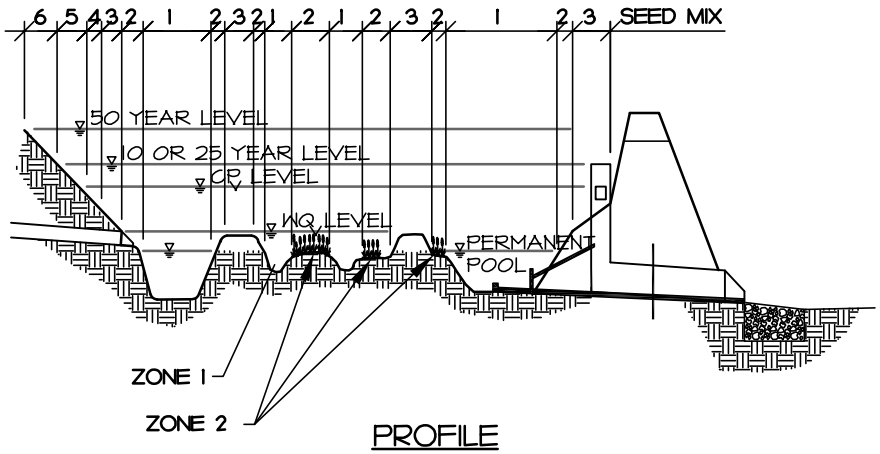
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETLAND DETAILS
BMP FIG. 4.3.4

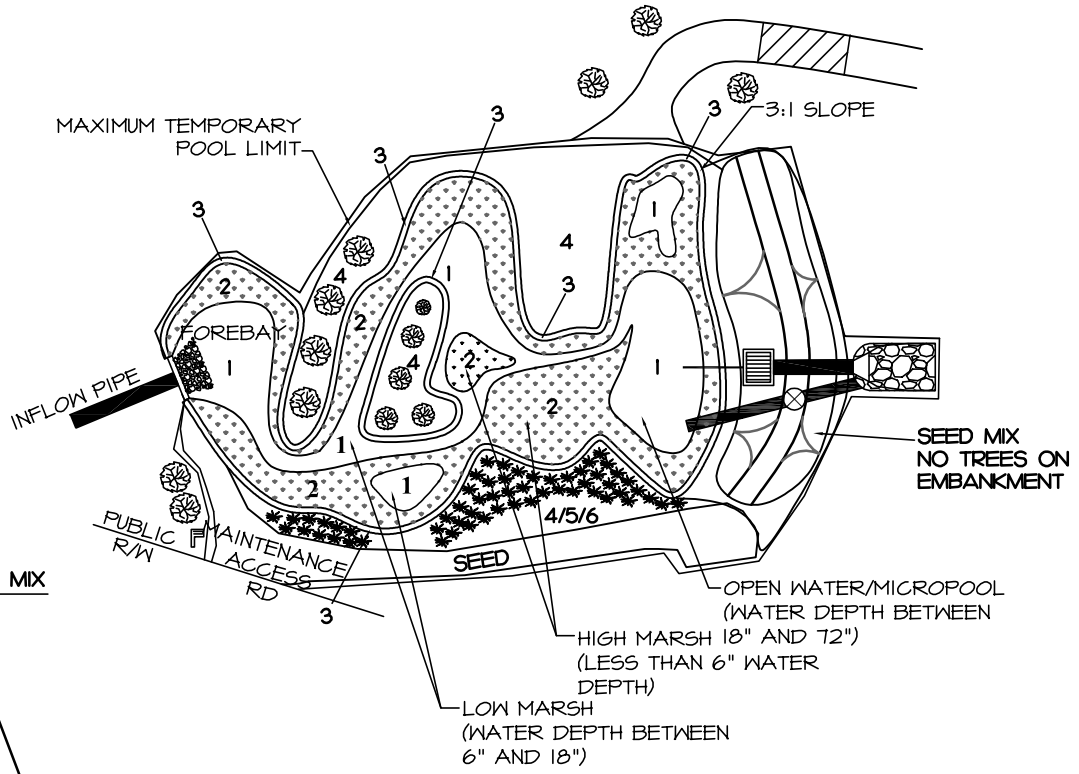
STD. NO.	REV.
21.13	

NOTES

1. PLANTINGS ZONES AND PLANT SELECTION PER THE BMP DESIGN MANUAL
2. ALL PLANTINGS SHALL BE LOCAL NATIVE SPECIES.
3. IRRIGATION MAY BE PROVIDED FOR INITIAL ESTABLISHMENT AND DRY SEASONS.



PROFILE



PLAN VIEW

NOT TO SCALE

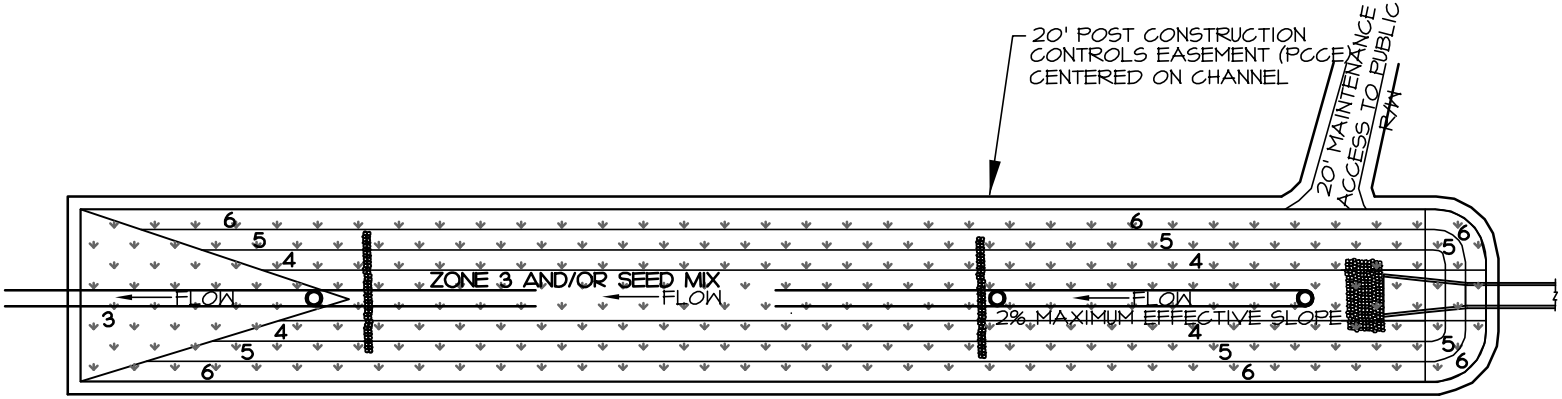
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

WETLAND PLANTING PLAN
BMP FIG. 4.3.5

STD. NO.	REV.
21.14	

NOTES:

1. PLANTING ZONES AND PLANT SELECTION PER THE BMP DESIGN MANUAL.
2. ALL PLANTINGS SHALL BE LOCAL NATIVE SPECIES.
3. IRRIGATION MAY BE PROVIDED FOR INITIAL ESTABLISHMENT AND DRY SEASONS.



PLAN VIEW

NOT TO SCALE

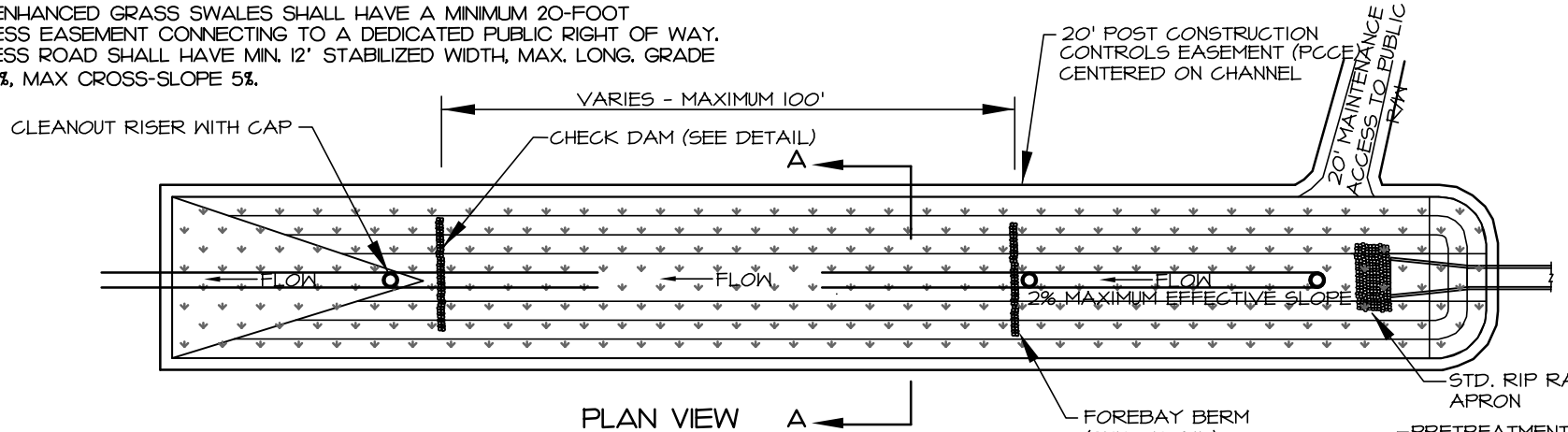
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ENHANCED GRASS SWALE PLANTING PLAN
BMP FIG. 4.4.3

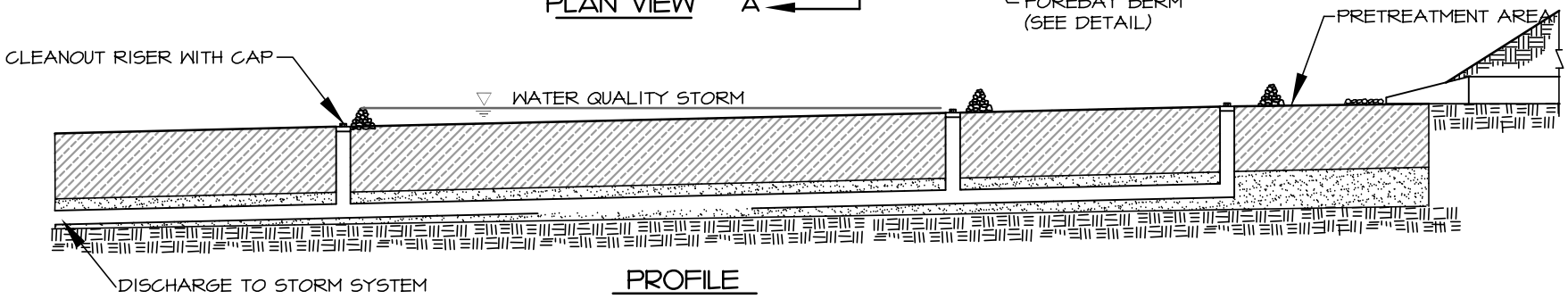
STD. NO.	REV.
21.15	

NOTES:

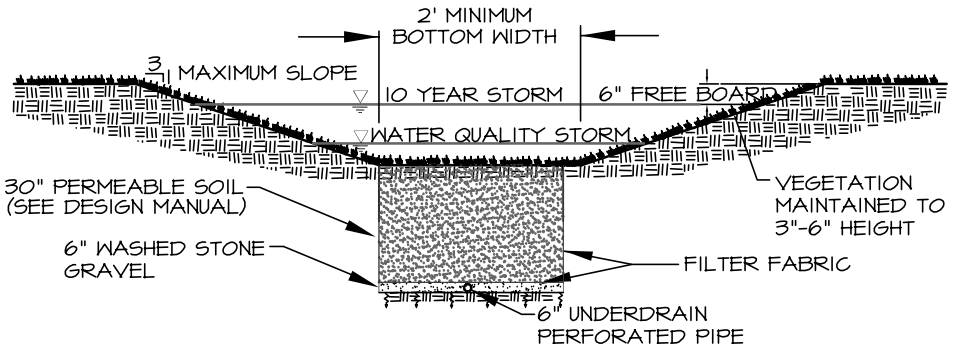
1. ALL ENHANCED GRASS SWALES SHALL HAVE A MINIMUM 20-FOOT ACCESS EASEMENT CONNECTING TO A DEDICATED PUBLIC RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX CROSS-SLOPE 5%.



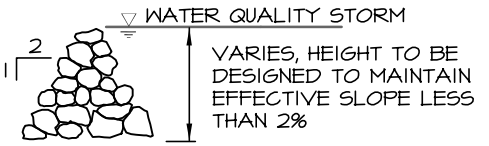
PLAN VIEW



PROFILE



SECTION A-A



CHECK DAM and FOREBAY BERM DETAIL

NOT TO SCALE

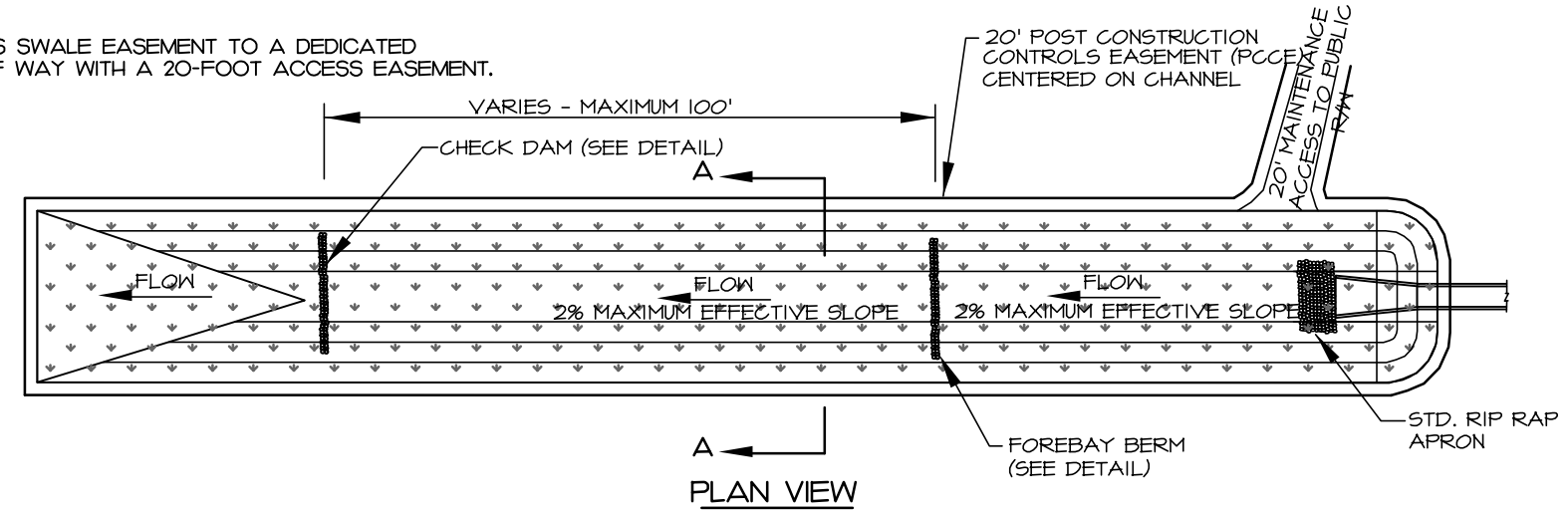
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ENHANCED GRASS SWALE DETAILS
BMP FIG. 4.4.5

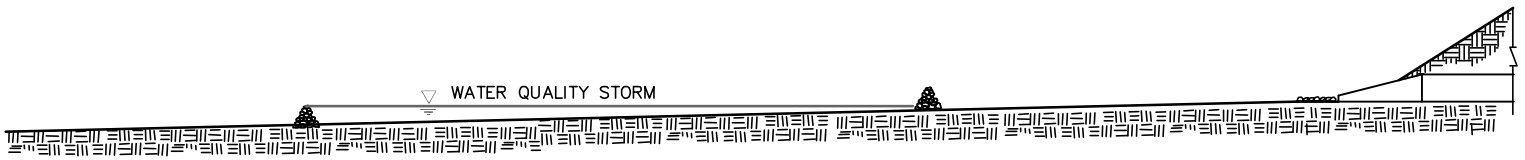
STD. NO.	REV.
21.16	

NOTES:

1. CONNECT GRASS SWALE EASEMENT TO A DEDICATED PUBLIC RIGHT OF WAY WITH A 20-FOOT ACCESS EASEMENT.

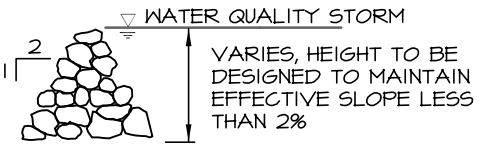


PLAN VIEW



PROFILE

SECTION A-A



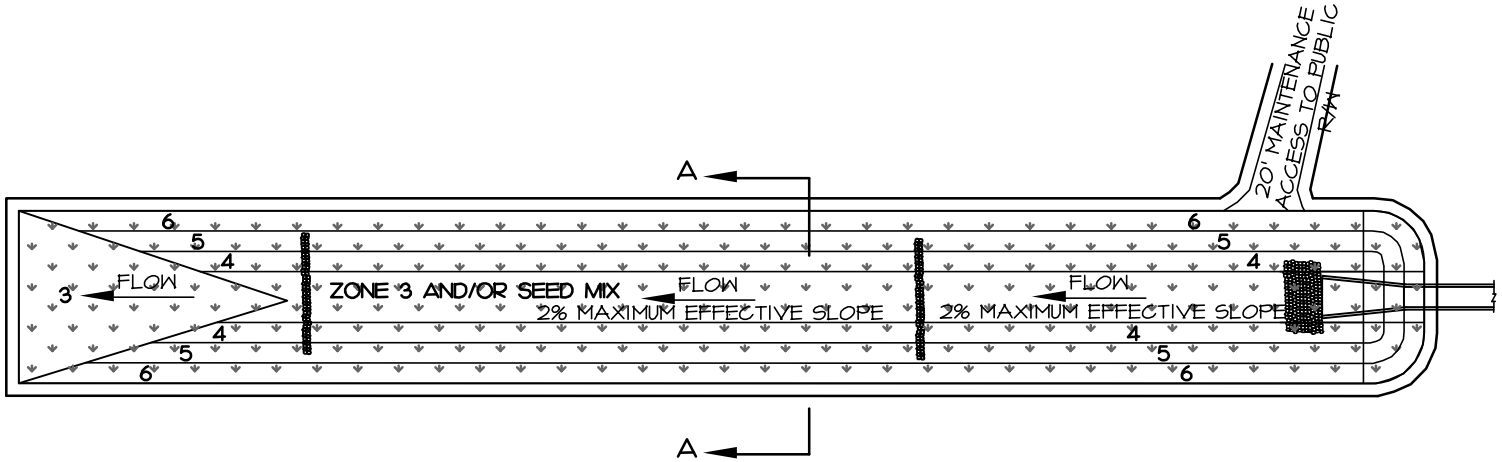
CHECK DAM and FOREBAY BERM DETAIL

NOT TO SCALE

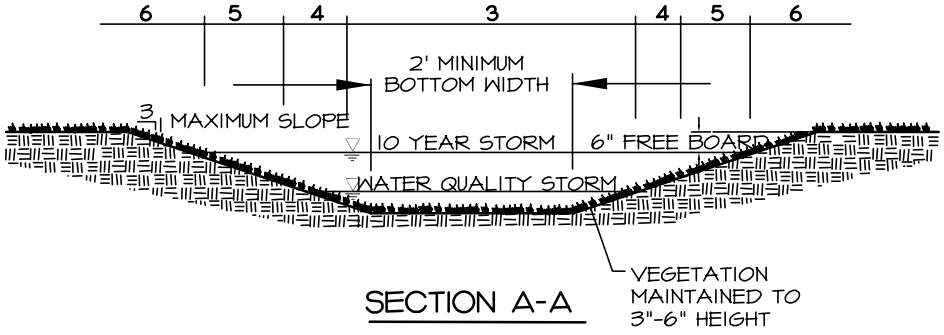
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

GRASS CHANNEL
BMP FIG. 4.5.2

STD. NO.	REV.
21.17	



PLAN VIEW



SECTION A-A

NOT TO SCALE

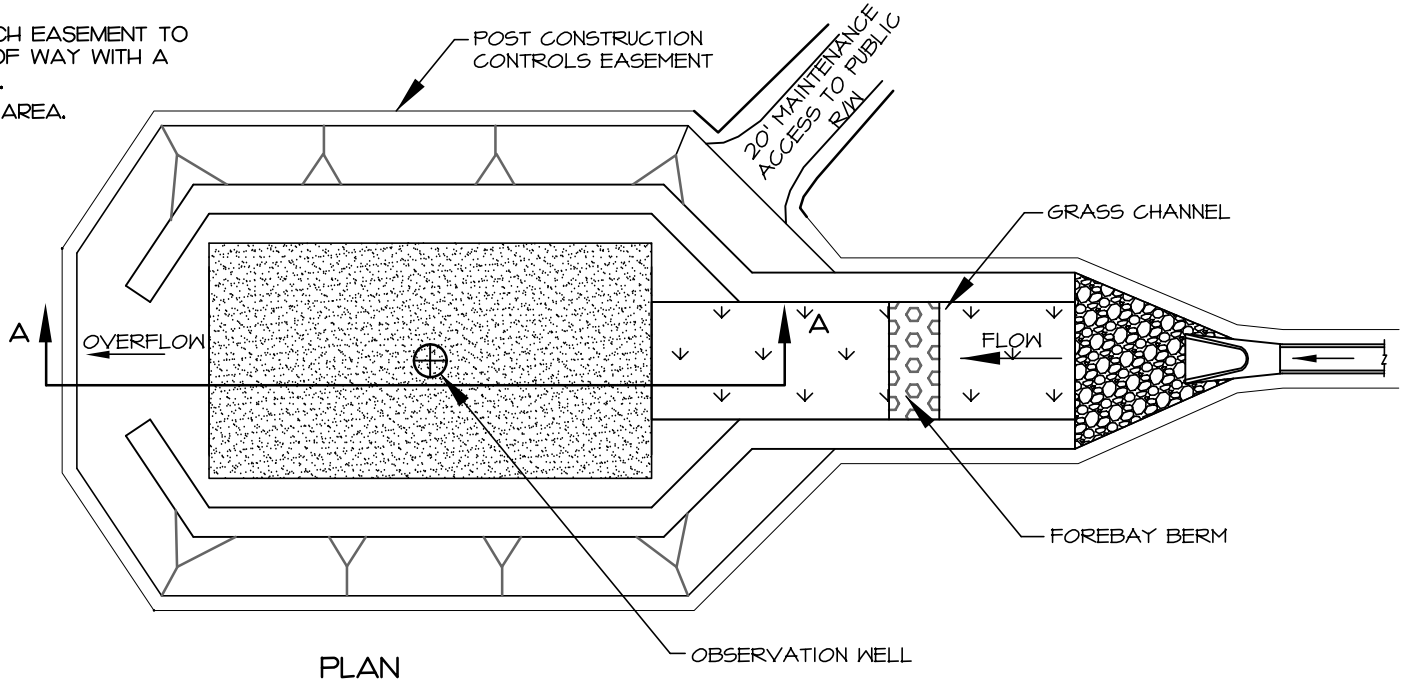
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

GRASS CHANNEL PLANTING PLAN
BMP FIG. 4.5.3

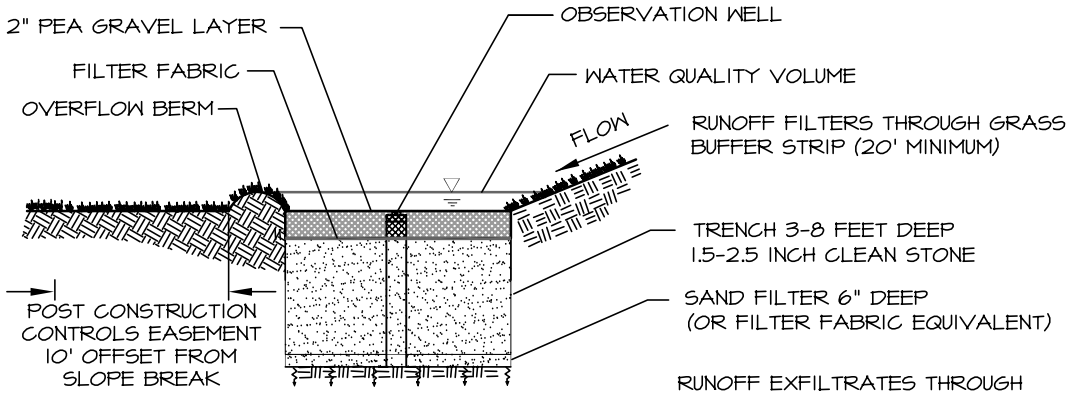
STD. NO.	REV.
21.18	

NOTES :

1. CONNECT INFILTRATION TRENCH EASEMENT TO A DEDICATED PUBLIC RIGHT OF WAY WITH A 20-FOOT ACCESS EASEMENT.
2. 5 ACRE MAXIMUM DRAINAGE AREA.



PLAN



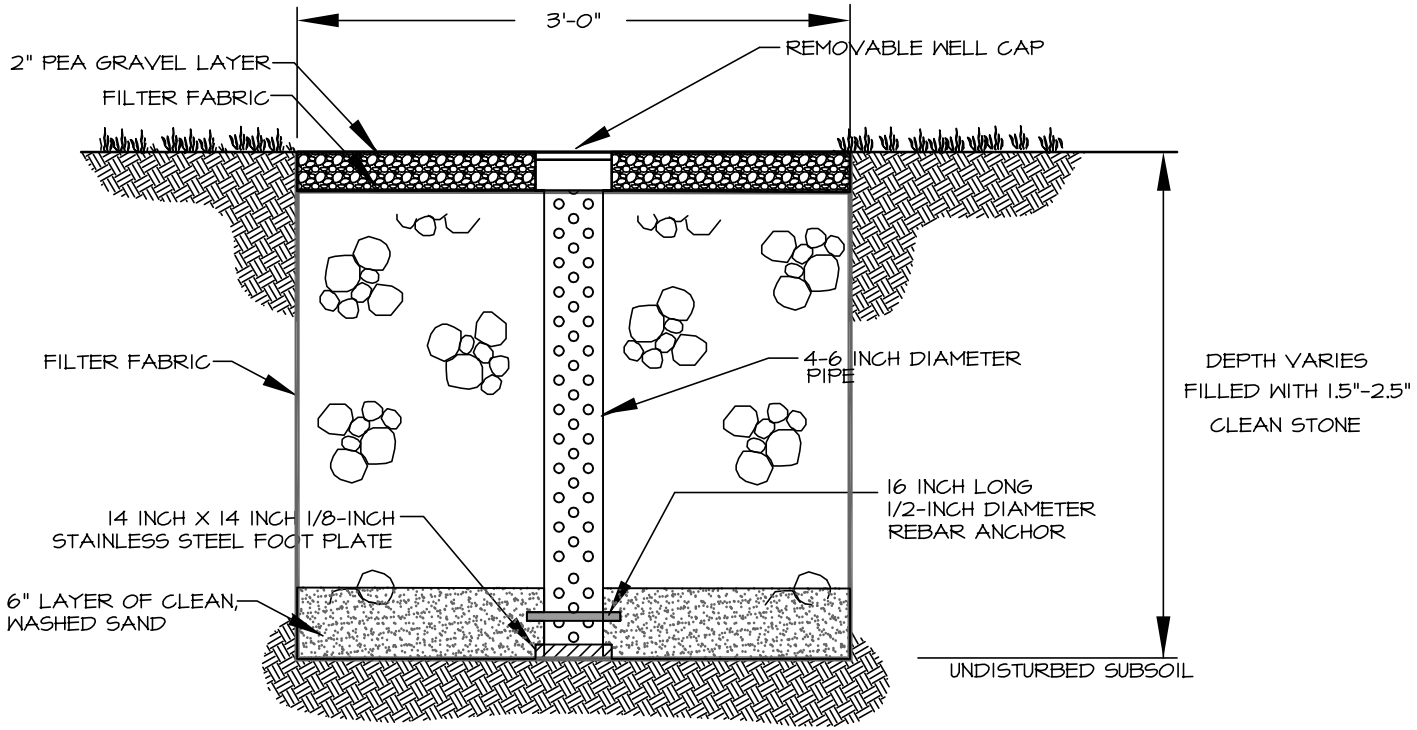
SECTION A-A

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

INFILTRATION TRENCH
BMP FIG. 4.6.2

STD. NO.	REV.
21.19	



PERFORATION HOLES TO BE 1/2 INCH DIAMETER AT 3 INCH MINIMUM VERTICAL SPACING

NOT TO SCALE

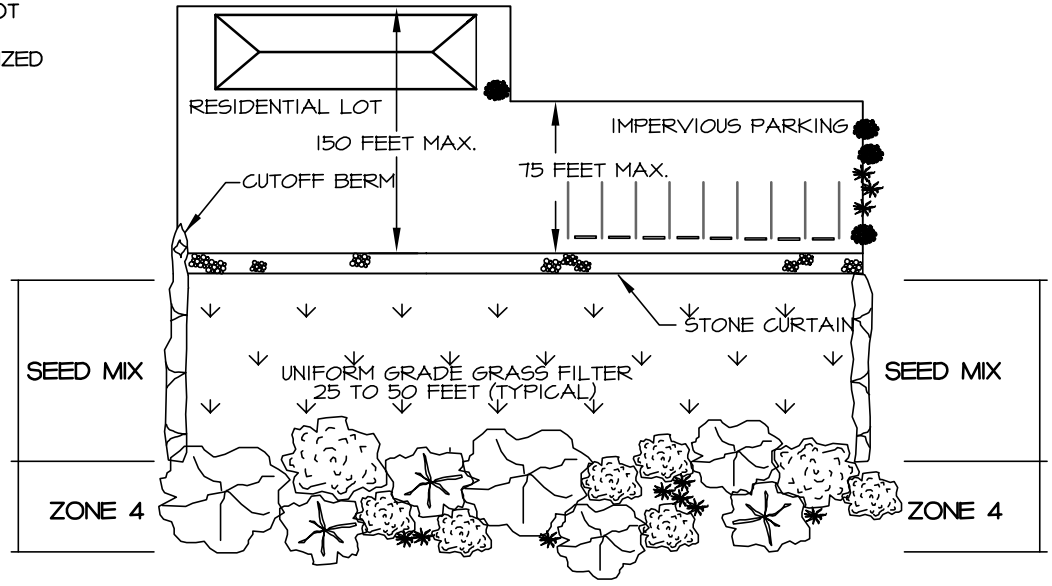
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

OBSERVATION WELL
BMP FIG. 4.6.3

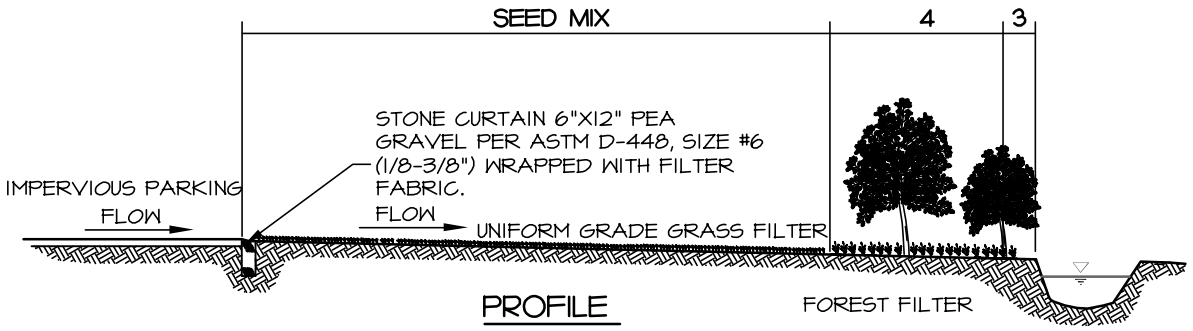
STD. NO.	REV.
21.20	

NOTES

1. MAXIMUM SLOPE 2% FOR FILTER STRIP AND 5% FOR BUFFER STRIP.
2. 5 ACRE MAXIMUM DRAINAGE AREA.
3. ALL FILTER/BUFFER STRIPS SHALL HAVE A MINIMUM 20 FOOT ACCESS EASEMENT CONNECTING TO A DEDICATED PUBLIC RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX. CROSS-SLOPE 5%.



PLAN



PROFILE

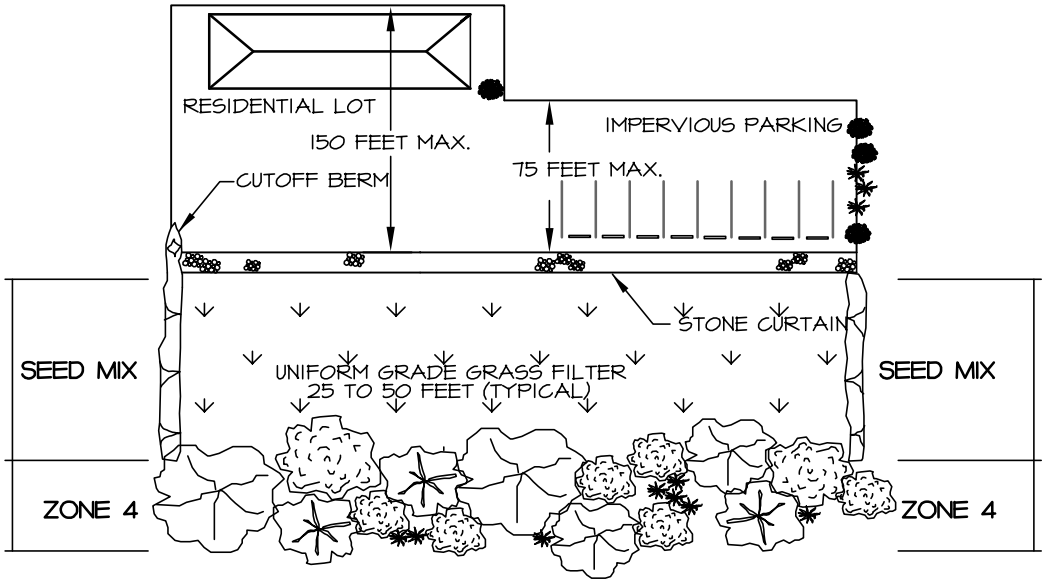
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

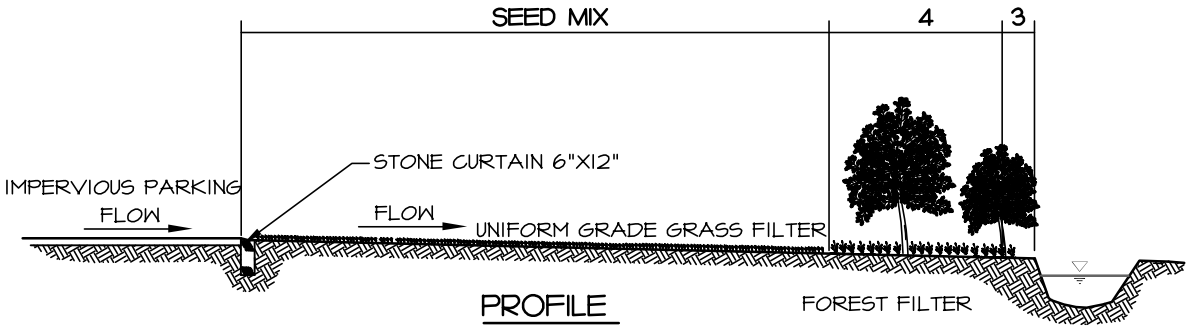
BUFFER STRIP
BMP FIG. 4.7.3

STD. NO.	REV.
21.21	

1.



PLAN



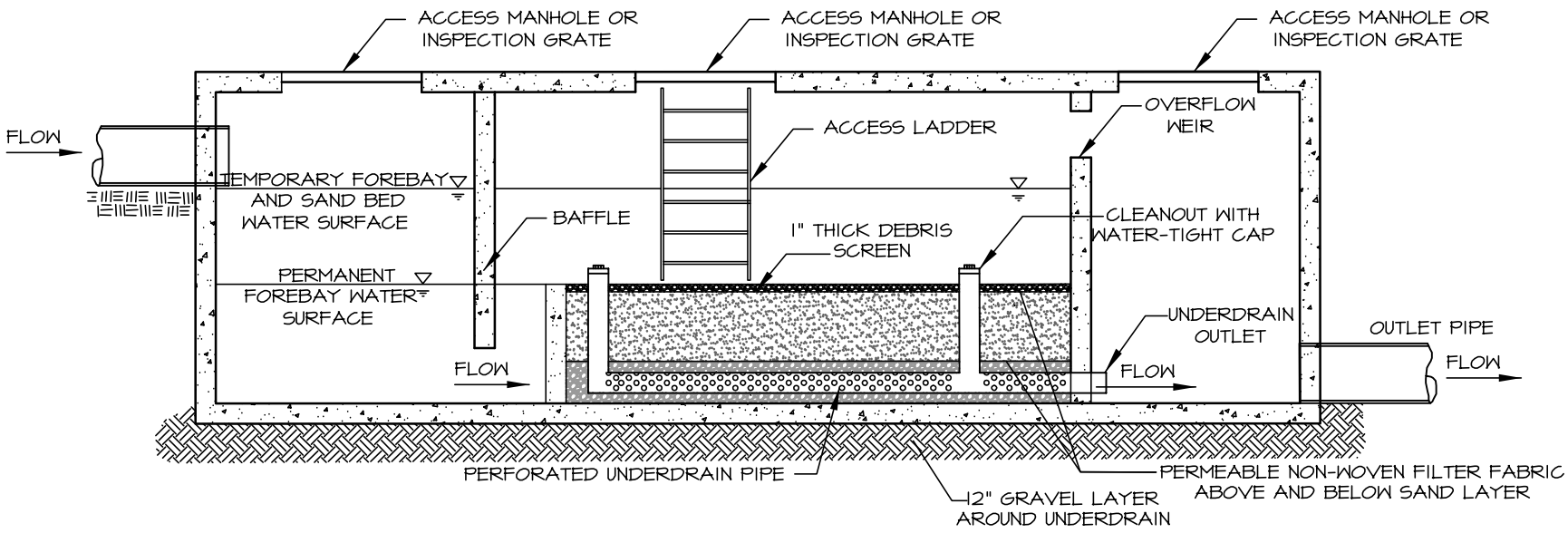
PROFILE

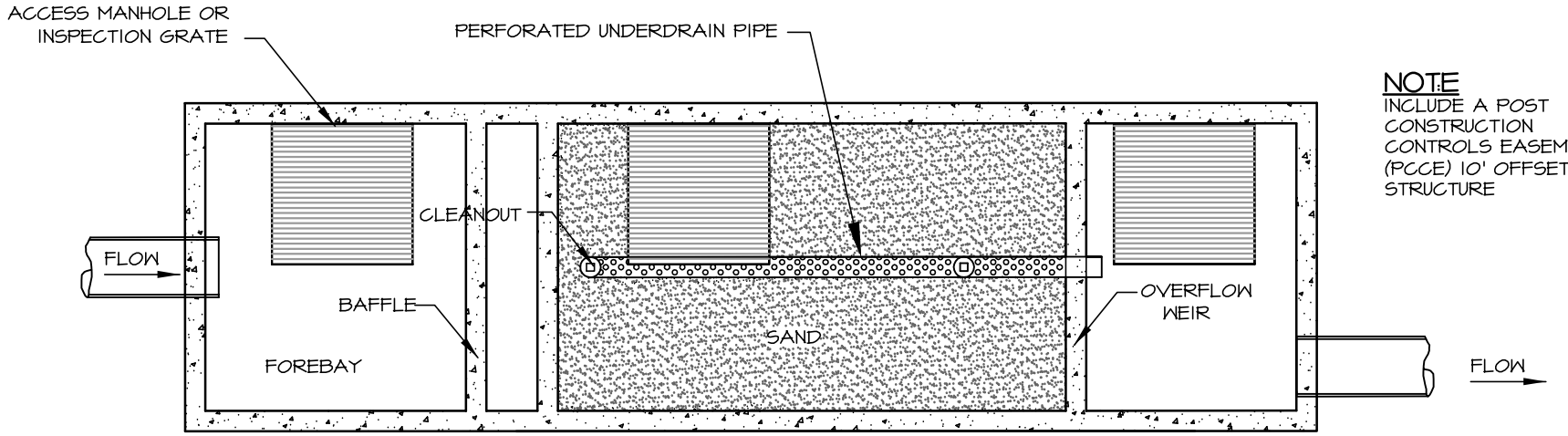
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BUFFER STRIP PLANTING PLAN
BMP FIG. 4.7.4

STD. NO.	REV.
21.22	





NOTE
INCLUDE A POST CONSTRUCTION CONTROLS EASEMENT (PCCE) 10' OFFSET FROM STRUCTURE

NOT TO SCALE

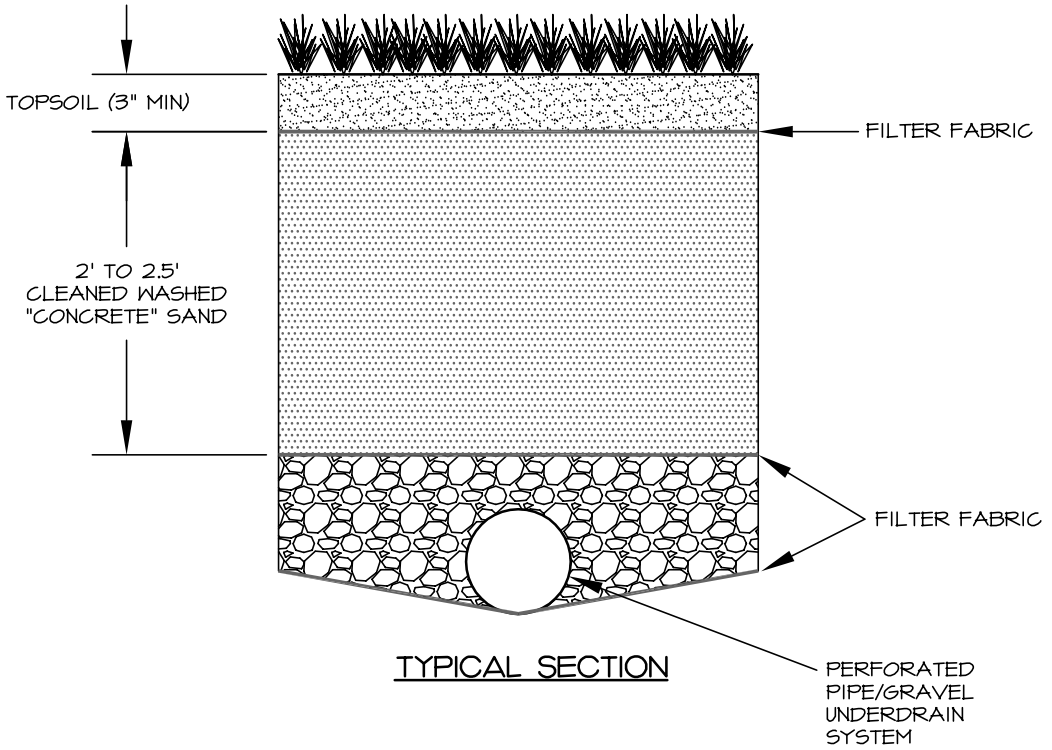
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

UNDERGROUND SAND FILTER

STD. NO.	REV.
21.23	

NOTES:

1. "CONCRETE" SAND REFERS TO SAND THAT IS COMMONLY USED IN CONCRETE MIXES.
2. ALL DRAINAGE AREAS TO A SAND FILTER FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF SAND.
3. UNDERDRAIN PIPES SHOULD BE MIN. 6" PERFORATED SCHEDULE 40 PVC (PER AASHTO M278) OR DOUBLE WALL HDPE (PER AASHTO M252). PERFORATIONS SHOULD BE 3/8" SPACED 3" ON CENTER ALONG 4 LONGITUDINAL ROWS SPACED 90° APART.



TYPICAL SECTION

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SURFACE SAND FILTER SECTION

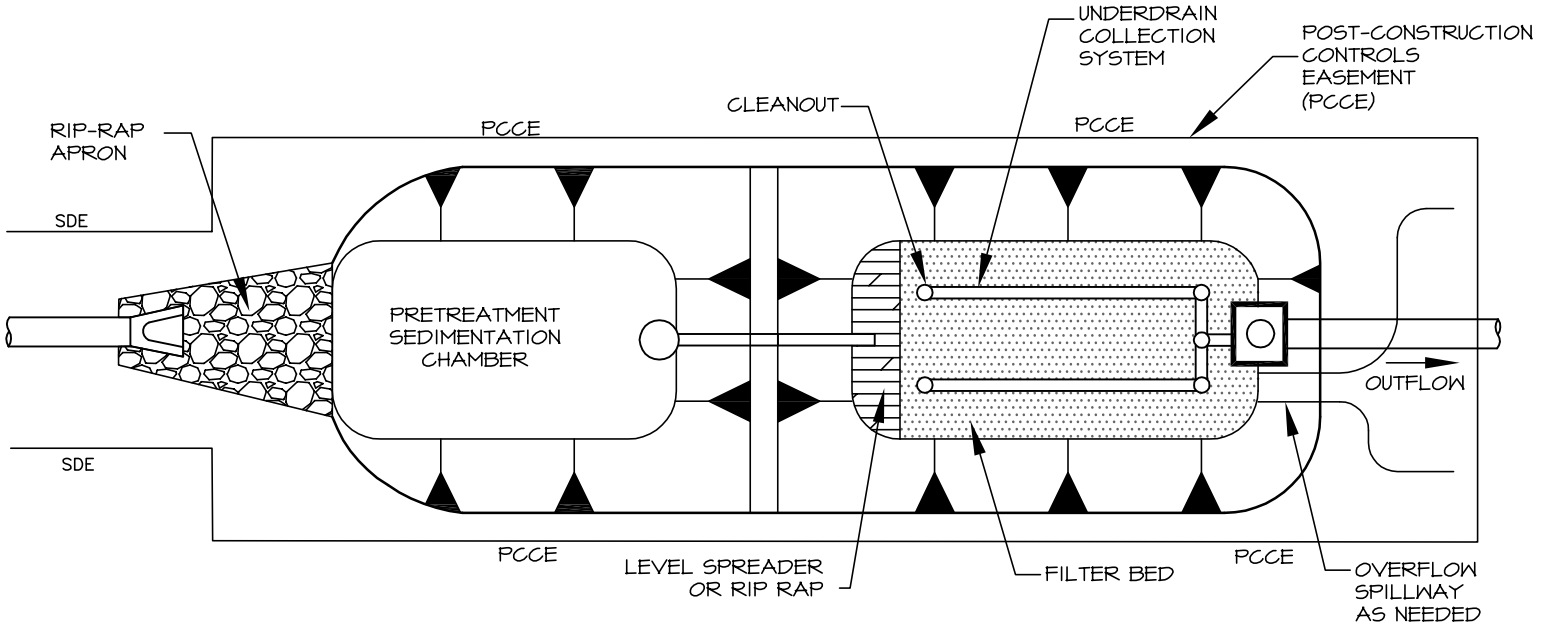
STD. NO.	REV.
21.25	

NOTES:

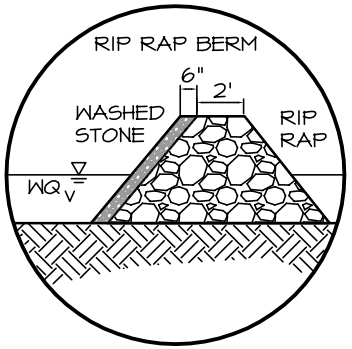
1. ALL SAND FILTERS SHALL HAVE A MINIMUM 20 FOOT ACCESS EASEMENT CONNECTING TO A DEDICATED PUBLIC RIGHT OF WAY. ACCESS ROAD SHALL HAVE MIN. 12' STABILIZED WIDTH, MAX. LONG. GRADE OF 15%, MAX. CROSS-SLOPE 5%. IN ADDITION, A 10-FOOT WIDE PERMANENT MAINTENANCE ACCESS EASEMENT MUST BE PROVIDED AROUND THE PERIMETER OF ALL BMPS TO ALLOW FOR ADEQUATE MAINTENANCE AND REPAIR.

2. ALL DRAINAGE AREAS TO A SAND FILTER FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF SAND.

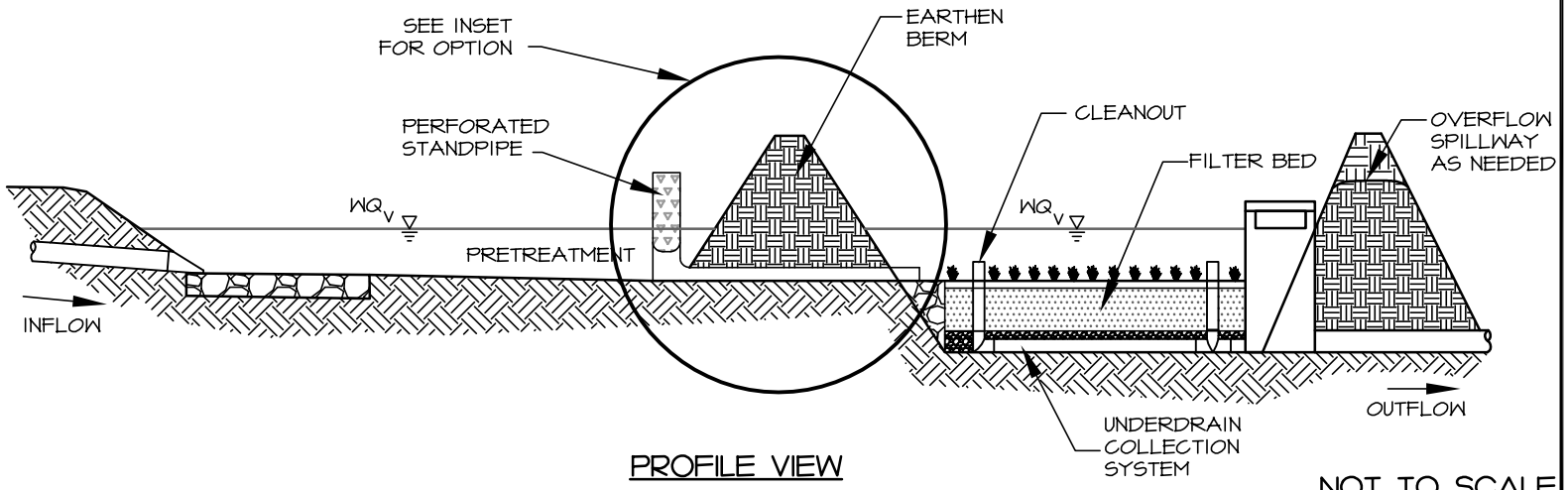
3. CLEAN OUTS IN THE UNDERDRAIN SYSTEM ARE TO BE PROVIDED EVERY 50' MINIMUM. CLEAN OUTS SHALL HAVE WATER TIGHT, VANDAL PROOF CAPS AND EXTEND 6" ABOVE THE SURFACE.



PLAN VIEW



INSET



PROFILE VIEW

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SURFACE SAND FILTER

STD. NO.	REV.
21.24	

STD. & SPEC. #	TITLE	SPECIAL REQUIREMENTS & NOTES
6.11	PERMANENT SEEDING	—
6.17	ROLLED EROSION CONTROL PRODUCTS	—
6.51	HARDWARE CLOTH & GRAVEL INLET PROTECTION	—
6.60	TEMPORARY SEDIMENT TRAP	WEIR TOP WIDTH 10' MIN., BOTTOM 7' MIN.
6.61	SEDIMENT BASIN	FLASH BOARD RISER NOT PERMITTED
6.64	SKIMMER SEDIMENT BASIN	1ST BAFFLE: RIP RAP & WASHED STONE BERM 2ND BAFFLE: STANDARD BAFFLE 3RD BAFFLE: HARDWARE CLOTH SURROUNDING THE SKIMMER
NCDOT 1606.1	SPECIAL SEDIMENT CONTROL FENCE	—

THE STANDARDS & SPECIFICATIONS SHOWN ARE FROM THE "NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" (NCESCPDM) PREPARED BY NC DEPT. OF ENVIRONMENT AND NATURAL RESOURCES (NCDENR), ALSO REFERENCE NCDOT "ROADWAY STANDARD DRAWINGS," LATEST EDITION.

THE TOWN HAS ADOPTED THE SPECIFIC STANDARDS & SPECIFICATIONS SHOWN ON THIS DETAIL AS MANDATORY MINIMUM DESIGN STANDARDS & SPECIFICATIONS. "SPECIAL REQUIREMENTS & NOTES" ARE INCLUDED WHEN THE TOWN'S CRITERIA IS MORE STRINGENT THAN THE NCESCPDM OR NCDOT STANDARDS.

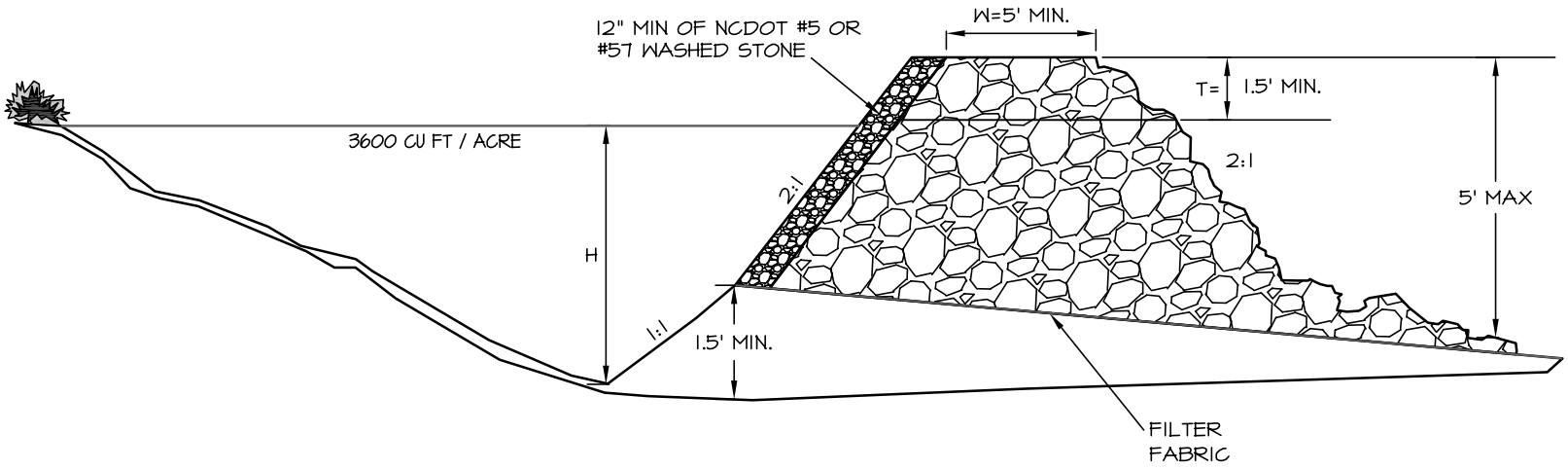
NOT TO SCALE

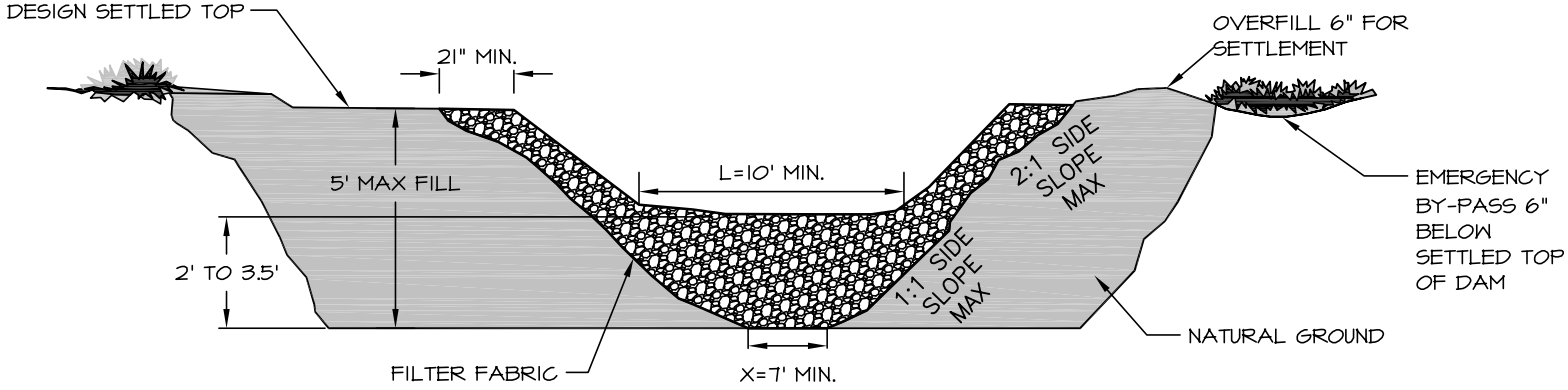
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SPECIAL EROSION CONTROL REQUIREMENTS & NOTES

STD. NO.	REV.
30.00	

TEMPORARY SEDIMENT TRAP DESIGN CRITERIA	
DRAINAGE AREA (ACRES)	< 1 AC.
MIN. LENGTH TO WIDTH RATIO	2:1
MIN. VOLUME REQUIRED	3600 (CU. FT. PER AC. DISTURBED)
SURFACE AREA REQUIRED	435 (SQ. FT. PER CFS QIO)





NOTE:

PLEASE REFER TO NCESCPDM SECTION #6.60 FOR ADDITIONAL DESIGN SPECIFICATIONS REGARDING TEMPORARY SEDIMENT TRAPS.

DATA BLOCK

TRAP NO.	DRAINAGE AREA (ACRES)	DENUDED AREA (ACRES)	Q10	TRAP VOLUME		TRAP SURFACE AREA		CLEANOUT DEPTH (FT.) H/2	H (FEET)	L (FEET)	T (FEET)	W (FEET)	X (FEET)
				REQUIRED (CUBIC FT.)	PROVIDED (CUBIC FT.)	REQUIRED (SQ FT.)	PROVIDED (SQ FT.)						

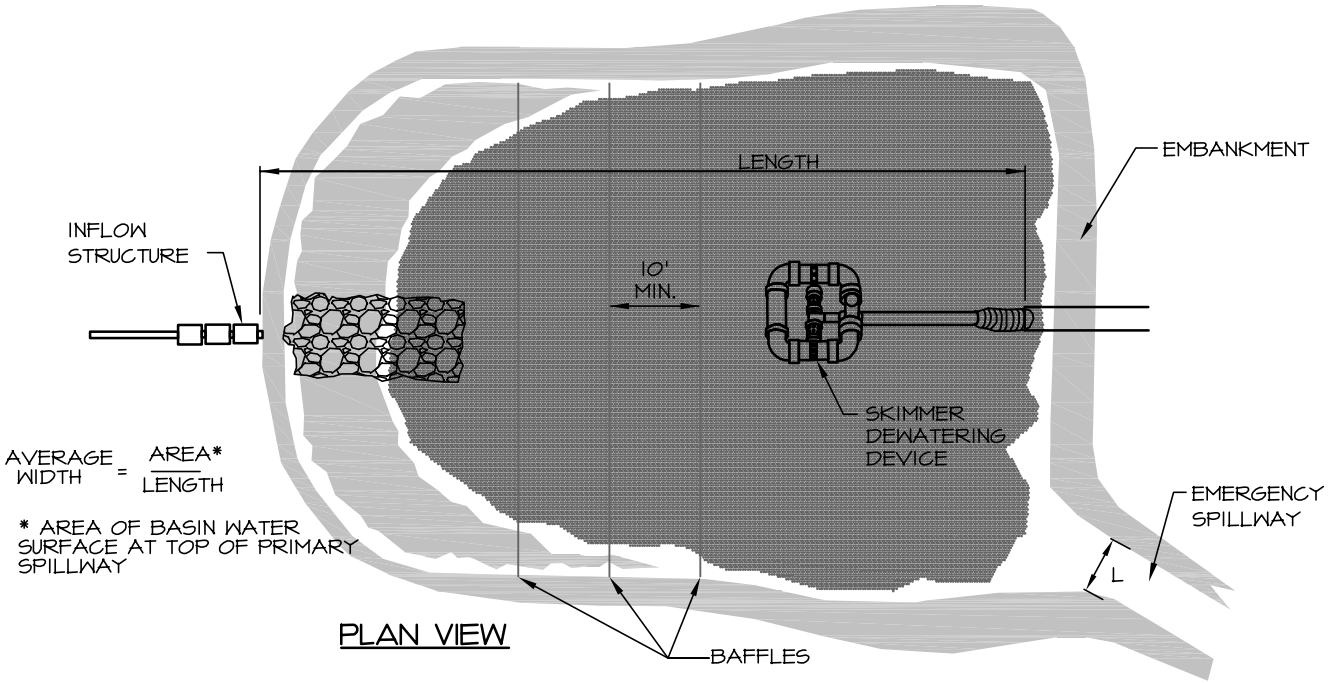
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY SEDIMENT TRAP

STD. NO.	REV.
30.01	

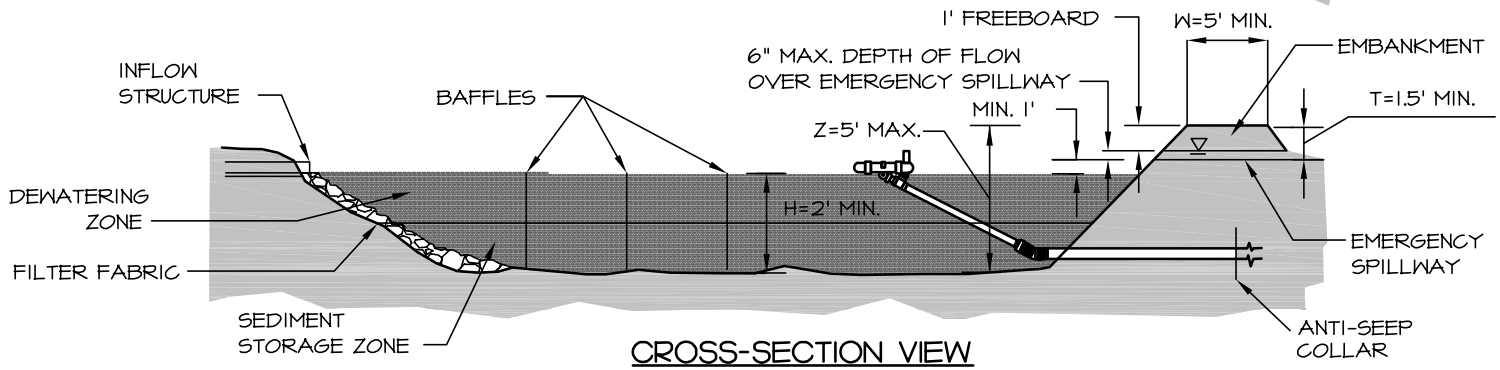
TEMPORARY SEDIMENT TRAP DESIGN CRITERIA	
DRAINAGE AREA (ACRES)	< 10 AC.
MIN. / MAX. LENGTH TO WIDTH RATIO	2:1 / 6:1
MIN. VOLUME REQUIRED	1800 (CU. FT. PER AC. DISTURBED)
SURFACE AREA REQUIRED	325 (SQ. FT. PER CFS Q10)



AVERAGE WIDTH = AREA* / LENGTH

* AREA OF BASIN WATER SURFACE AT TOP OF PRIMARY SPILLWAY

PLAN VIEW



CROSS-SECTION VIEW

NOTES:

1. REFER TO NCESCPDM SECTION #6.64 FOR ADDITIONAL DESIGN SPECIFICATIONS REGARDING SKIMMER SEDIMENT BASINS.
2. REFER TO STD. #30.19 FOR BAFFLE SPACING AND INSTALLATION.

DATA BLOCK

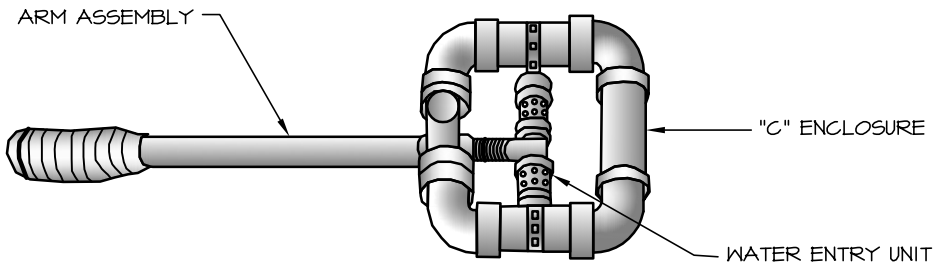
NOT TO SCALE

BASIN	DRAINAGE AREA (ACRES)	DENUDED AREA (ACRES)	Q10	BASIN VOLUME		BASIN SURFACE AREA		CLEANOUT DEPTH (FT) H/2	H (FEET)	Z (FEET)	L (FEET)	T (FEET)	W (FEET)	SKIMMER PIPE DIA.	SKIMMER ORIFICE DIA.
				REQUIRED (CUBIC FT.)	PROVIDED (CUBIC FT.)	REQUIRED (SQ FT.)	PROVIDED (SQ FT.)								

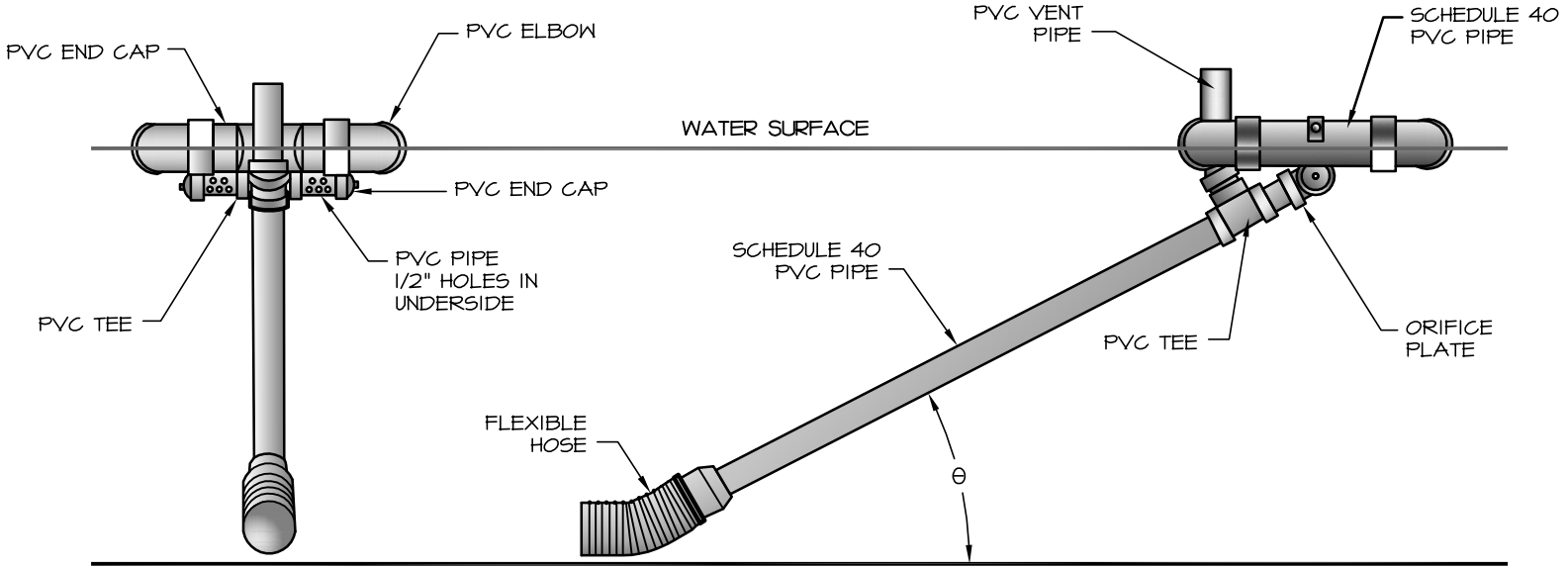
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SKIMMER SEDIMENT BASIN

STD. NO.	REV.
30.02A	



PERSPECTIVE VIEW



END VIEW

FRONT VIEW

SCHEMATIC OF SKIMMER TAKEN FROM PENNSYLVANIA EROSION AND SEDIMENT POLLUTION CONTROL MANUAL, MARCH 2000.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

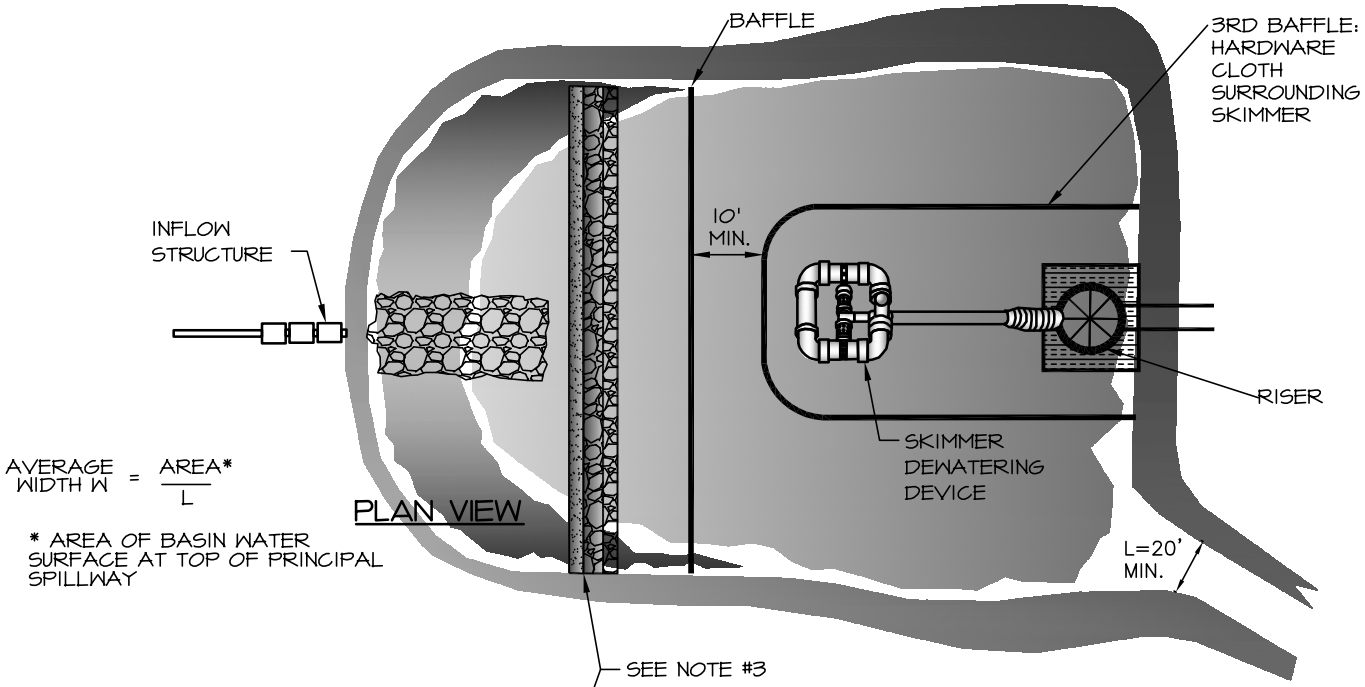
SKIMMER

STD. NO.	REV.
30.02B	

SEDIMENT BASIN DESIGN CRITERIA	
DRAINAGE AREA (ACRES)	>10 AC. <100 AC.
MIN. / MAX. LENGTH TO WIDTH RATIO	2:1 / 6:1
MIN. VOLUME REQUIRED	1800 (CU. FT. PER AC. DISTURBED)
SURFACE AREA REQUIRED	435 (SQ. FT. PER CFS Q10)

NOTES:

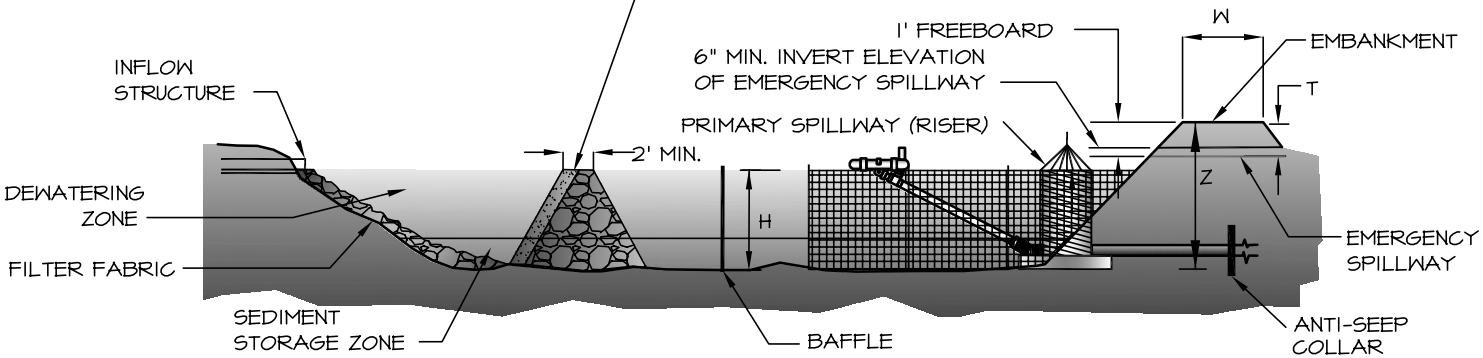
1. REFER TO NCESCPDM SECTION #6.61 FOR ADDITIONAL DESIGN SPECIFICATIONS REGARDING SEDIMENT BASINS.
2. REFER TO STD. #30.19 FOR BAFFLE SPACING AND INSTALLATION.
3. FIRST BAFFLE IS TO BE CONSTRUCTED OF RIP-RAP AND #5 WASHED STONE, WITH A MIN. HEIGHT OF 3' AND MIN. TOPWIDTH OF 2'.
4. FLASHBOARD RISER NOT PERMITTED FOR USE



AVERAGE WIDTH W = AREA* / L

* AREA OF BASIN WATER SURFACE AT TOP OF PRINCIPAL SPILLWAY

PLAN VIEW



CROSS-SECTION VIEW

DATA BLOCK

BASIN	DRAINAGE AREA (ACRES)	DENUDED AREA (ACRES)	Q10	BASIN VOLUME		BASIN SURFACE AREA		CLEANOUT DEPTH (FT) H/2	H (FEET)	Z (FEET)	L (FEET)	T (FEET)	W (FEET)	SKIMMER PIPE DIA.	SKIMMER ORIFICE DIA.
				REQUIRED (CUBIC FT.)	PROVIDED (CUBIC FT.)	REQUIRED (SQ FT.)	PROVIDED (SQ FT.)								

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SEDIMENT BASIN

STD. NO.	REV.
30.03A	

GENERAL NOTES:

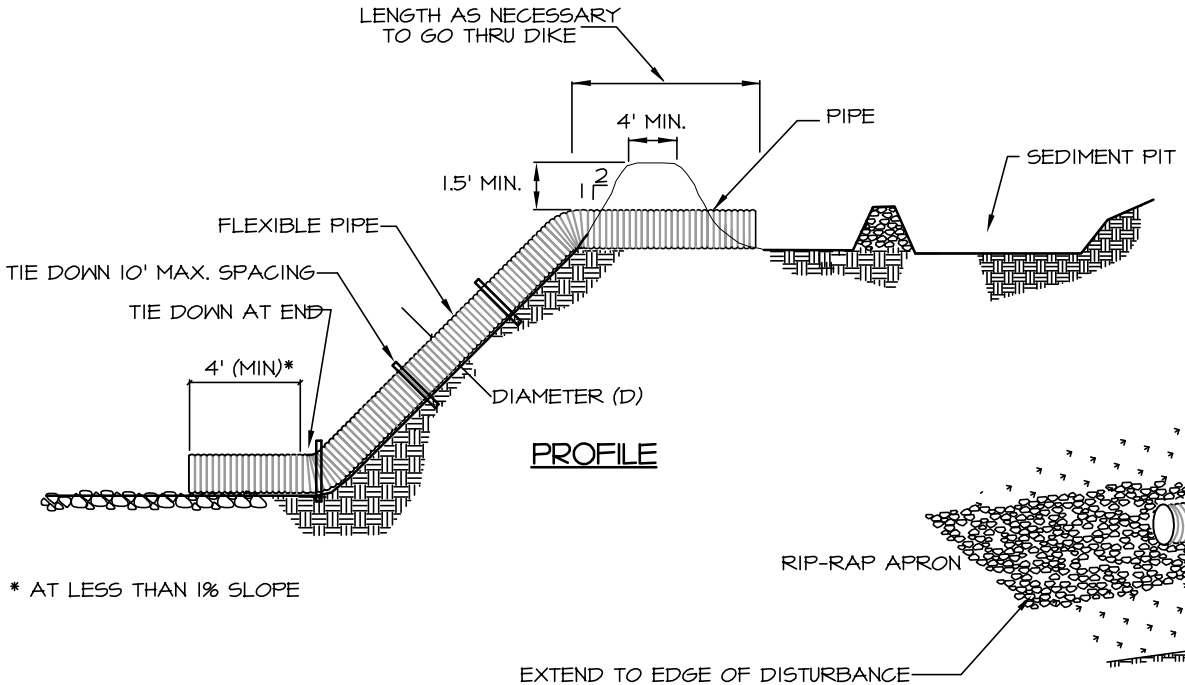
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MATERIAL.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL CONSTRUCTED. SPILLWAYS SHOULD NOT BE CONSTRUCTED THROUGH FILL SECTIONS. ALL SPILLWAYS SHOULD BE LINED AND/OR RIPRAPPED.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA IN SUCH
4. THE TRAP SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY.
5. CONSTRUCTION OPERATION SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
6. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER,
7. SEDIMENT BASIN EMBANKMENTS SHOULD BE PROVIDED WITH EROSION CONTROL AND STABILIZATION.
8. STORAGE AREA MAY BE CONSTRUCTED IN ANY SHAPE PROVIDED THE MINIMUM STORAGE VOLUME REQUIREMENT IS MET. THE BASIN SHOULD ALSO BE ORIENTED SUCH THAT THE FILTER AND THE MAIN FLOW OF WATER AND SEDIMENT ARE ON OPPOSITE ENDS ON THE LONGER BASIN DIMENSIONS.
9. THE LENGTH OF THE STONE OUTLET (SPILLWAY) IS TO BE BASED ON A 10 YEAR STORM.
10. WHENEVER TOPOGRAPHY ALLOWS, THE BASIN LENGTH SHOULD BE TWICE (2X) THE BASIN WIDTH, TO ALLOW FOR SETTLING. BAFFLES SHALL BE INSTALLED IN ALL BASINS.
11. CLEANOUT STAKES SHALL BE PLACED IN ALL SEDIMENT BASINS AT THE LOW POINT IN THE BASIN. THE STAKES SHALL BE MARKED SHOWING THE HALF FULL, CLEANOUT POINT, OF THE BASIN.
12. SAFETY FENCING 3' HIGH SHOULD BE PLACED AROUND ALL SEDIMENT BASINS.
13. FOR DESIGN OF SEDIMENT BASINS, REFER TO THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
14. FOR SLOPES GREATER THAN 10' IN LENGTH AND PROTECTED BY SILT FENCE AT THE TOE OF THE SLOPE, SLOPE TERRACING WILL
15. THE BERM ON SEDIMENT BASINS SHALL BE SEEDED ONCE FINAL GRADE HAS BEEN REACHED. THE SILT FENCE MAY BE REMOVED IF PERMISSION HAS BEEN GRANTED BY THE TOWN LAND DEVELOPMENT/NCDENR INSPECTOR AFTER THE GRASS HAS GERMINATED AND STABLE GROUND HAS BEEN ESTABLISHED.
16. WASHED STONE AND WIRE BACKING SHALL BE USED WITH SILT FENCE WHENEVER SILT FENCE IS PLACE AT THE TOE OF A SLOPE> 10' VERTICAL OR ALONG ANY CHANNEL OR WATER COURSE WHERE 50' OF BUFFER IS NOT PROVIDED.

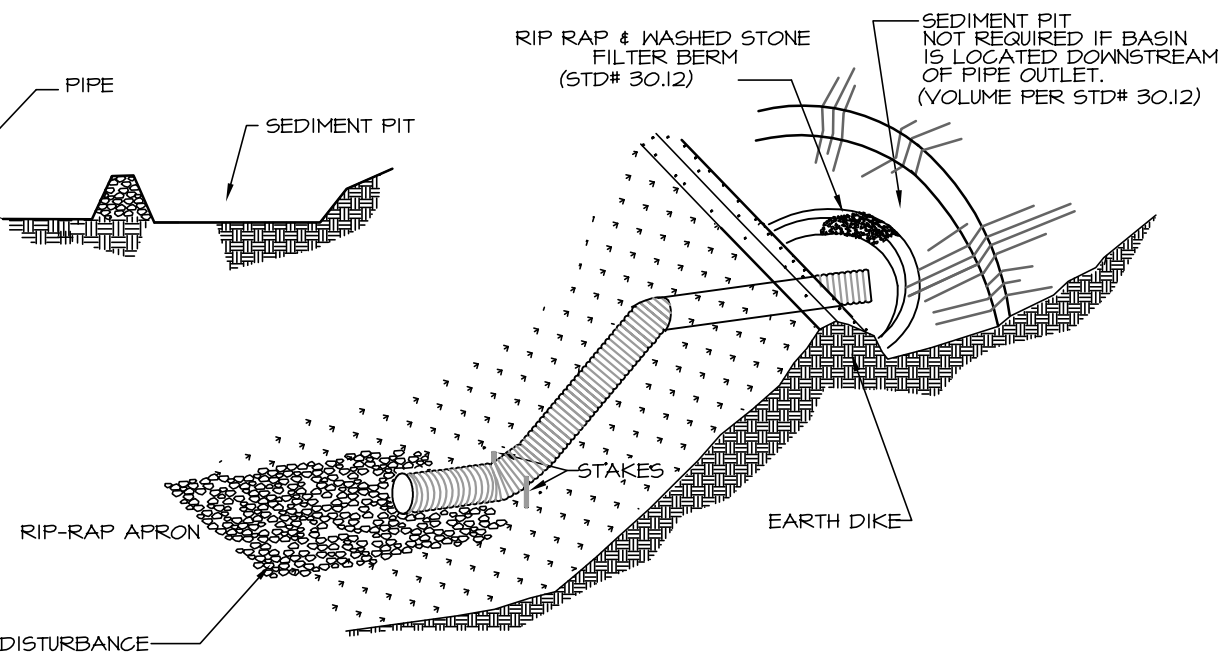
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

GENERAL NOTES-SEDIMENT BASINS

STD. NO.	REV.
30.03B	





CONSTRUCTION SPECIFICATIONS:

1. THE TOP OF THE EARTH DIKE OVER THE INLET PIPE AND THOSE DIKES CARRYING WATER TO THE PIPE SHALL BE AT LEAST 1.5 FEET HIGHER AT ALL POINTS THAN THE TOP OF THE INLET PIPE.
2. THE PIPE SHALL BE FLEXIBLE WITH WATER TIGHT CONNECTING BANDS. FLEXIBLE PIPE SHOULD BE STAKED ON EITHER SIDE.
3. A RIP RAP APRON SHALL BE PROVIDED AT THE OUTLET, IF EMPTYING INTO A DISTURBED AREA.
4. THE SOIL AROUND AND UNDER THE INLET PIPE AND ENTRANCE SECTION SHALL BE HAND TAMPED IN 4" LIFTS TO THE TOP OF THE EARTH DIKE.
5. FOLLOW-UP INSPECTION AND ANY NEEDED MAINTENANCE SHALL BE PERFORMED AFTER EACH STORM BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT.
6. OUTLET PIPE SHOULD BE TAKEN OVER OR THROUGH ANY SILT FENCE, TAKING CARE NOT TO VOID THE EFFECTIVENESS OF THE SILT FENCE.

NOT TO SCALE

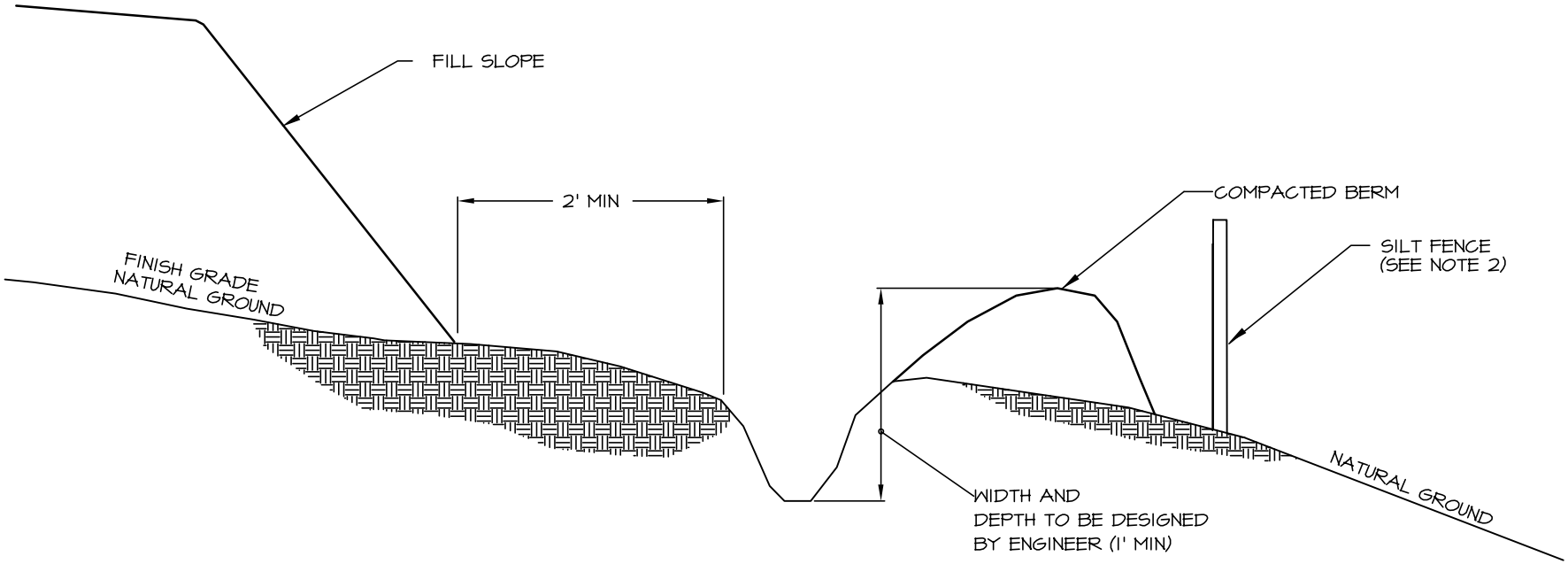
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

FLEXIBLE PIPE SLOPE DRAIN

STD. NO.	REV.
30.04	

NOTES:

1. DITCH SHOULD HAVE LONGITUDINAL SLOPE OF 1%.
2. SILT FENCE MAY BE REQUIRED BEHIND BERM

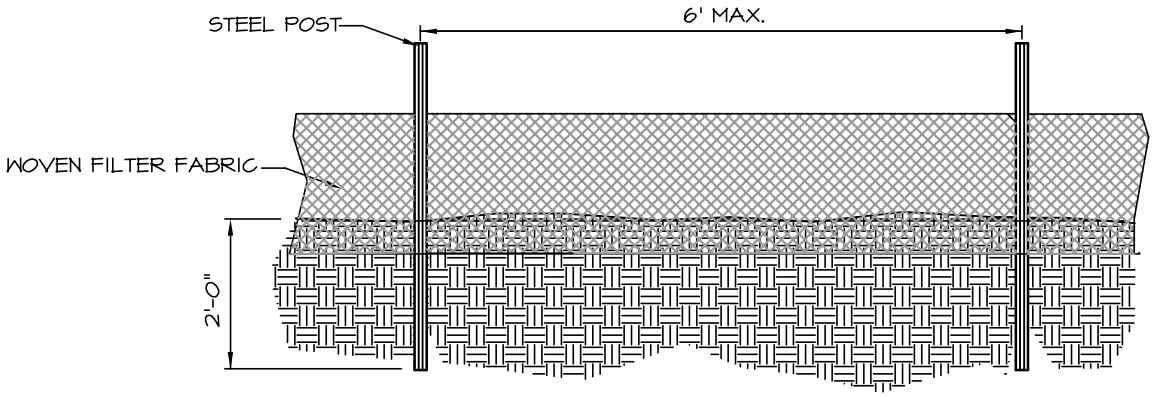


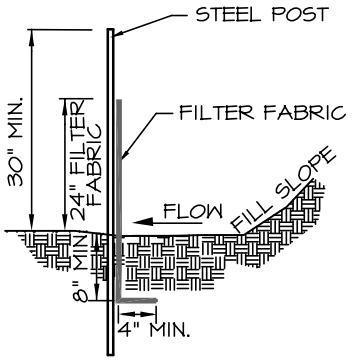
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY SILT DITCH

STD. NO.	REV.
30.05	





GENERAL NOTES

1. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
2. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
3. TURN SILT FENCE UP SLOPE AT ENDS.
4. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWIM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
5. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
6. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
7. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.

MAINTENANCE NOTES

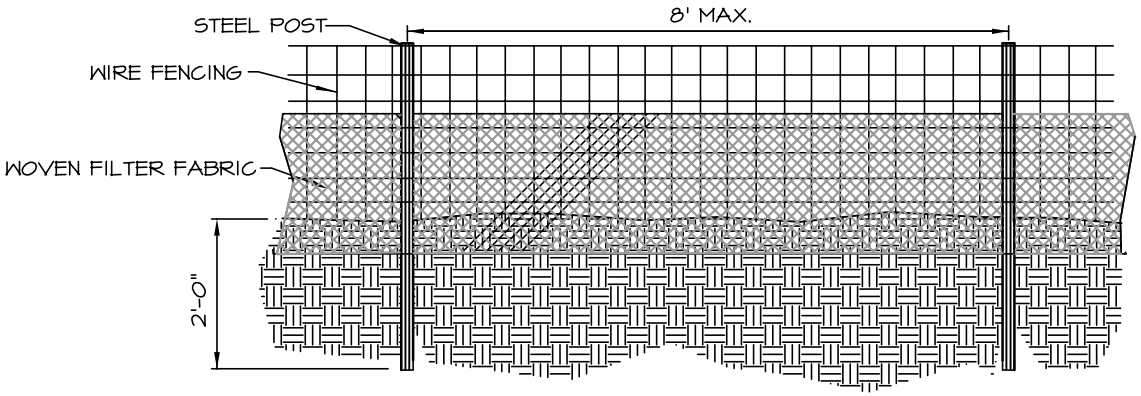
1. FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

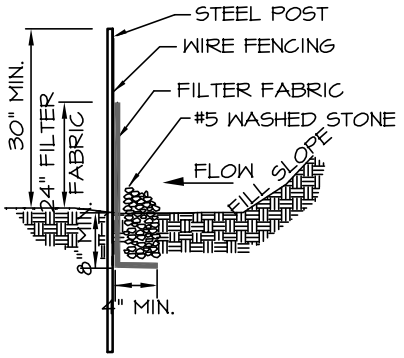
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY SILT FENCE

STD. NO.	REV.
30.06A	





GENERAL NOTES

1. WIRE FENCING SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WIRE FENCING SHALL BE AT LEAST #10 GAGE WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
5. TURN SILT FENCE UP SLOPE AT ENDS.
6. WIRE MESH SHALL BE MIN. 13 GAGE WITH MAXIMUM 12" OPENINGS.
7. WIRE AND WASHED STONE IS REQUIRED TO BE SHOWN ON PLANS AT THE TOE OF SLOPES GREATER THAN 10 FEET VERTICAL (2:1 SLOPE)
8. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO STREAM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
9. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
10. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
11. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.

MAINTENANCE NOTES

1. FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

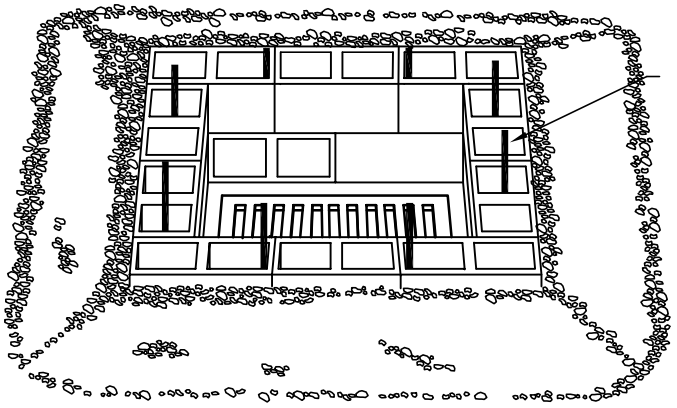
NOT TO SCALE

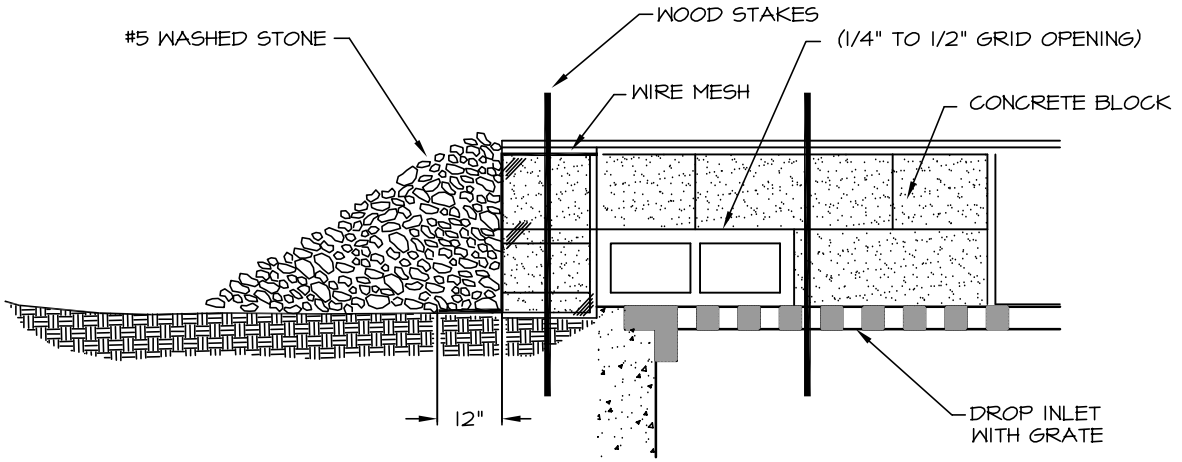
TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

HIGH HAZARD TEMPORARY SILT FENCE

STD. NO.	REV.
30.06B	





SPECIFIC APPLICATION:

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

NOT TO SCALE

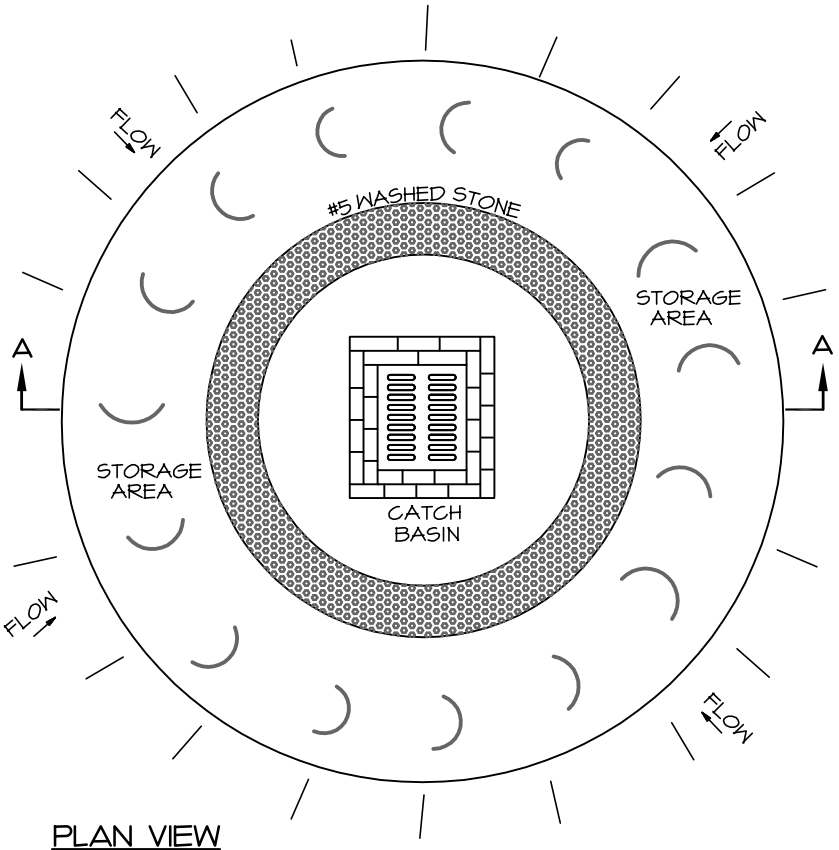
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BLOCK AND GRAVEL STONE INLET PROTECTION

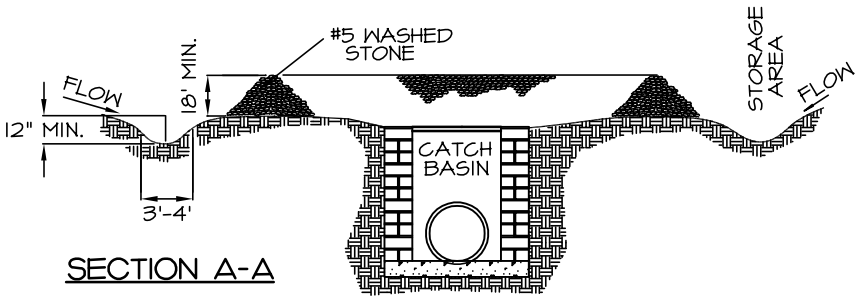
STD. NO.	REV.
30.07	

GENERAL NOTES:

1. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
2. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. THE STRUCTURE SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT AFTER EACH STORM EVENT AND REPAIRS MADE AS NECESSARY.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE BASIN HAS BEEN PROPERLY STABILIZED.
6. ON LARGER DRAINAGE AREAS RIP RAP MAY BE REQUIRED UNDER THE WASHED STONE.



PLAN VIEW



SECTION A-A

NOT TO SCALE

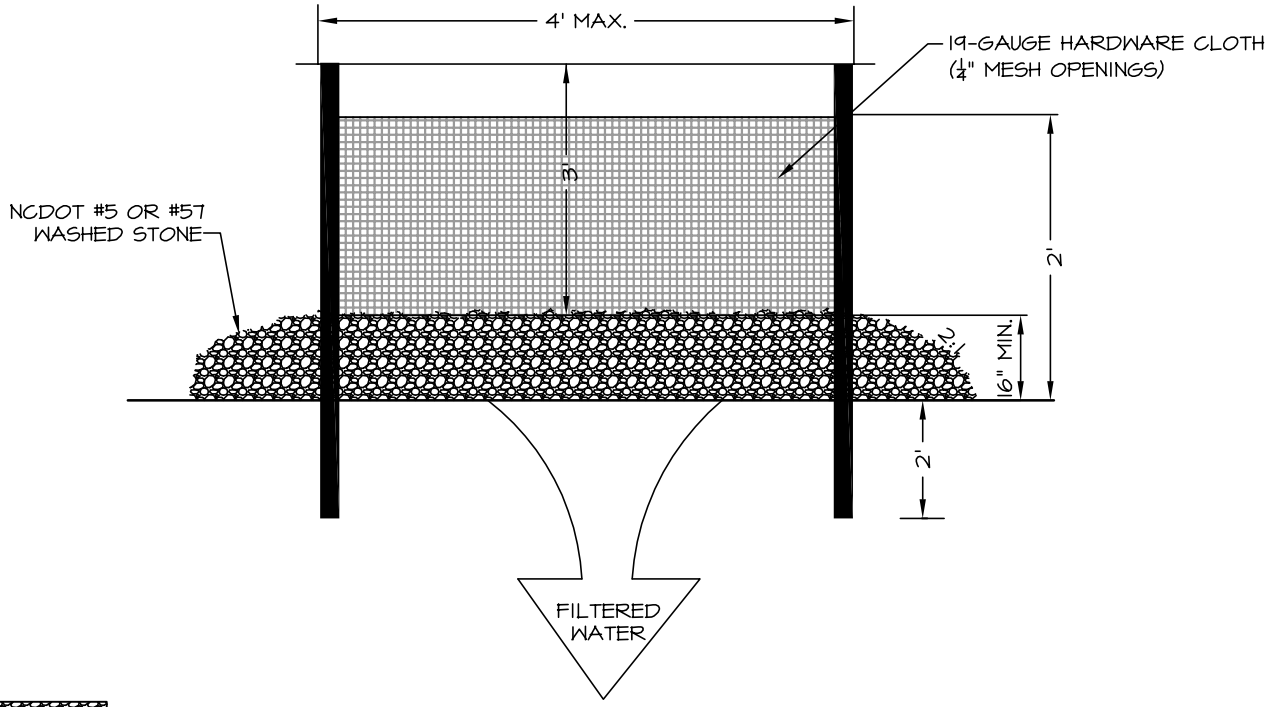
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

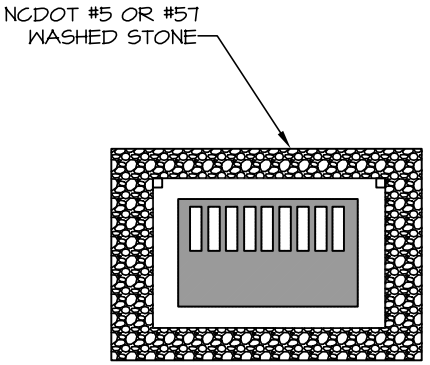
STONE INLET PROTECTION

STD. NO.	REV.
30.08	

GENERAL NOTES:

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUNDCOVER.





NOT TO SCALE

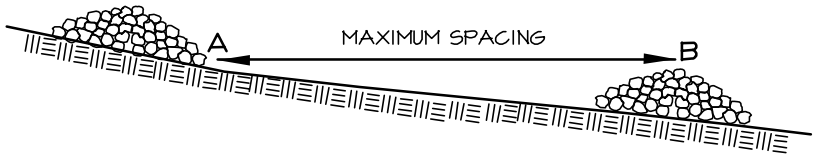
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

HARDWARE CLOTH AND GRAVEL INLET PROTECTION

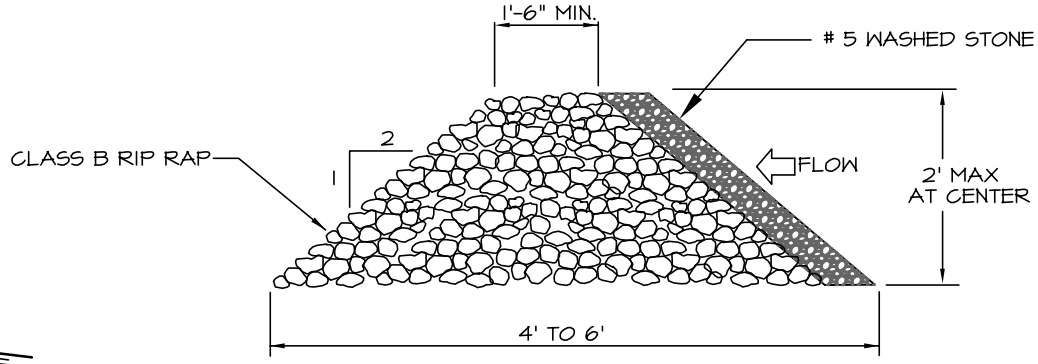
STD. NO.	REV.
30.09	

GENERAL NOTES:

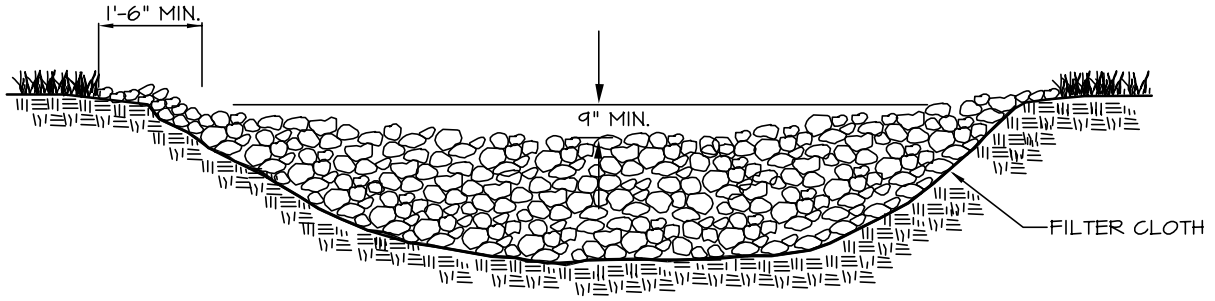
1. RIPRAP SIZE TO BE DESIGNED BY ENGINEER.
2. CHECK DAMS MAY BE USED IN SLOPING DITCHES OR CHANNELS TO SLOW VELOCITY OR TO CREATE SEDIMENT TRAPS.
3. ENSURE THAT MAXIMUM SPACING BETWEEN DAMS PLACES THE TOE OF THE UPSTREAM DAM AT THE SAME ELEVATION AS THE DOWNSTREAM DAM (SEE DIAGRAM BELOW).



A AND B ARE AT EQUAL ELEVATIONS



CROSS SECTION



PLAN

NOT TO SCALE

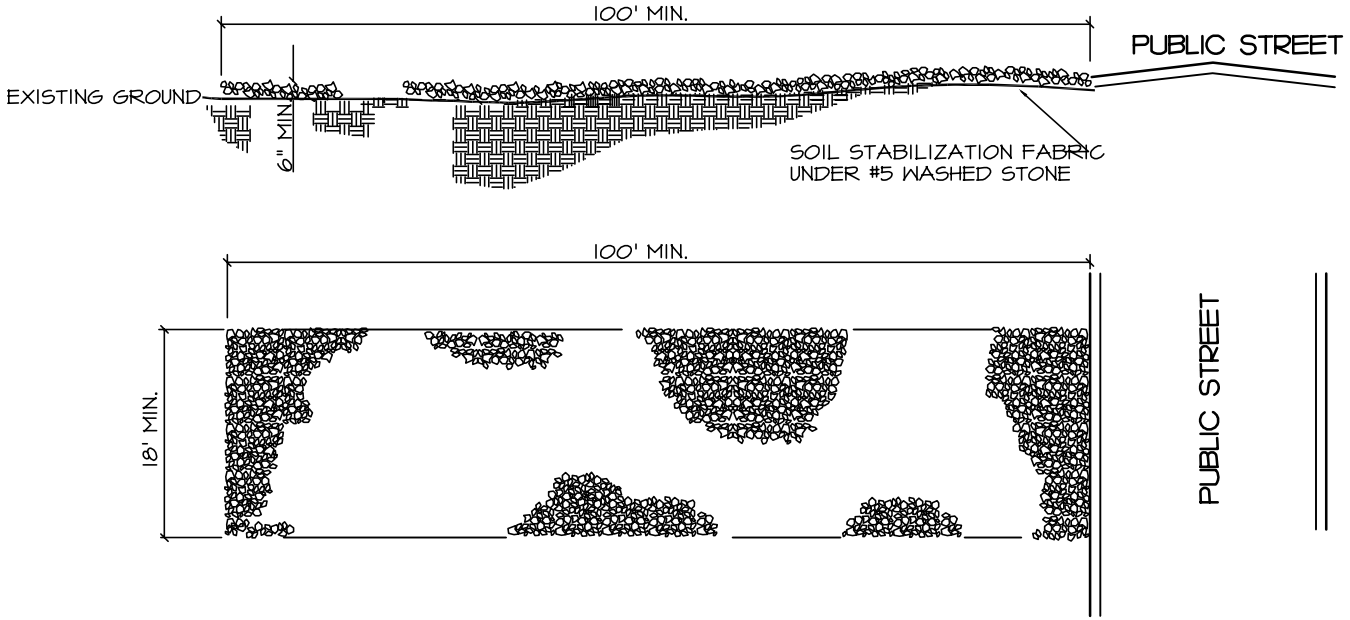
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY ROCK CHECK DAM

STD. NO.	REV.
30.10	

NOTES:

1. A STABILIZED ENTRANCE PAD OF #5 WASHED STONE OR RAIL ROAD BALLAST SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. FILTER FABRIC OR COMPACTED CRUSHER RUN STONE SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN SEE STD. NO. 30.11B.
6. THE TOWN/NCDOT MAY REQUIRE A STANDARD COMMERCIAL DRIVEWAY (STD. 10.24 & 10.25) TO ACCESS THE CONSTRUCTION SITE IF THE DRIVEWAY IS ON A THOROUGHFARE.

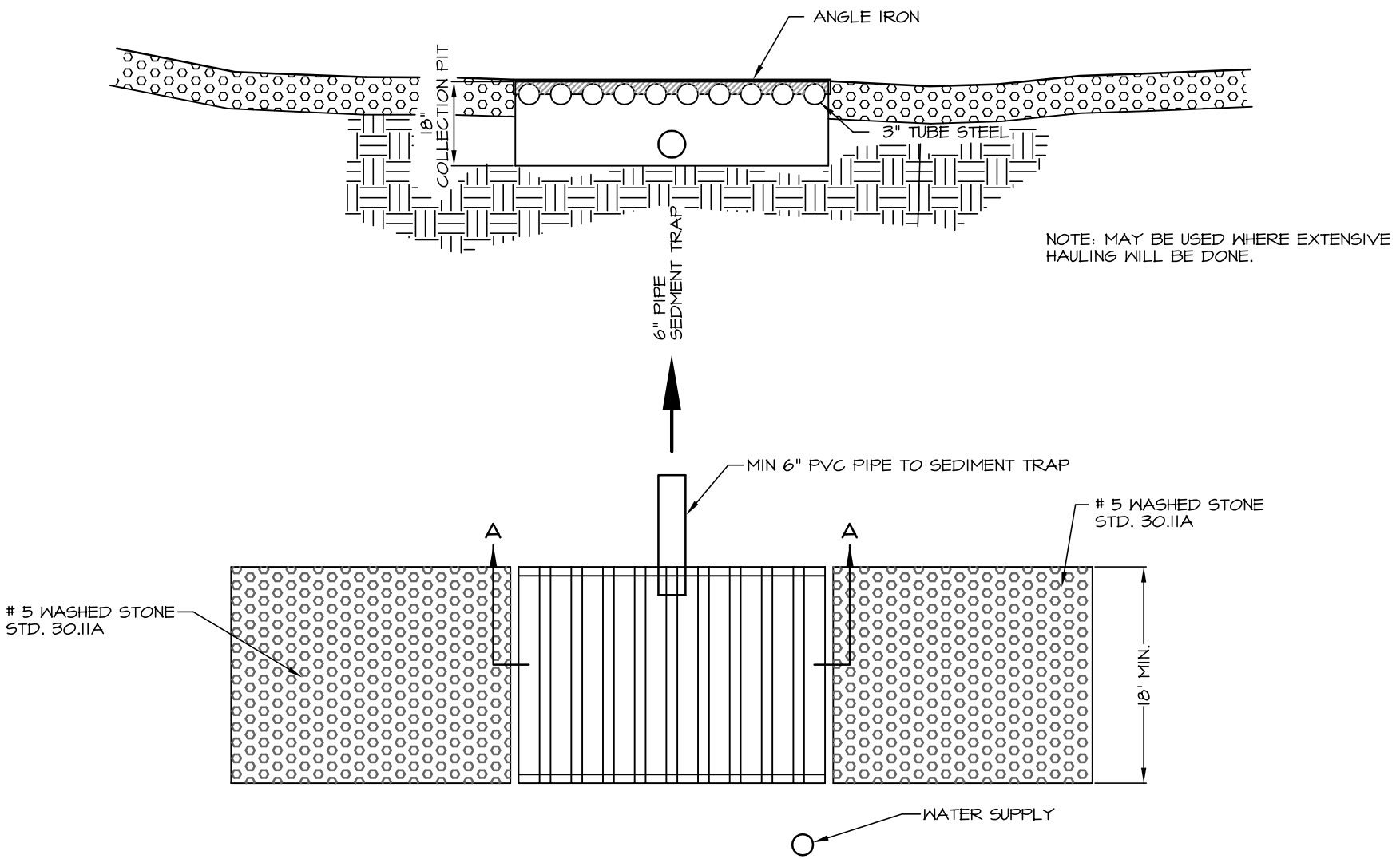


NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

STABILIZED CONSTRUCTION ENTRANCE

STD. NO.	REV.
30.11A	



NOT TO SCALE

TOWN OF STALLINGS

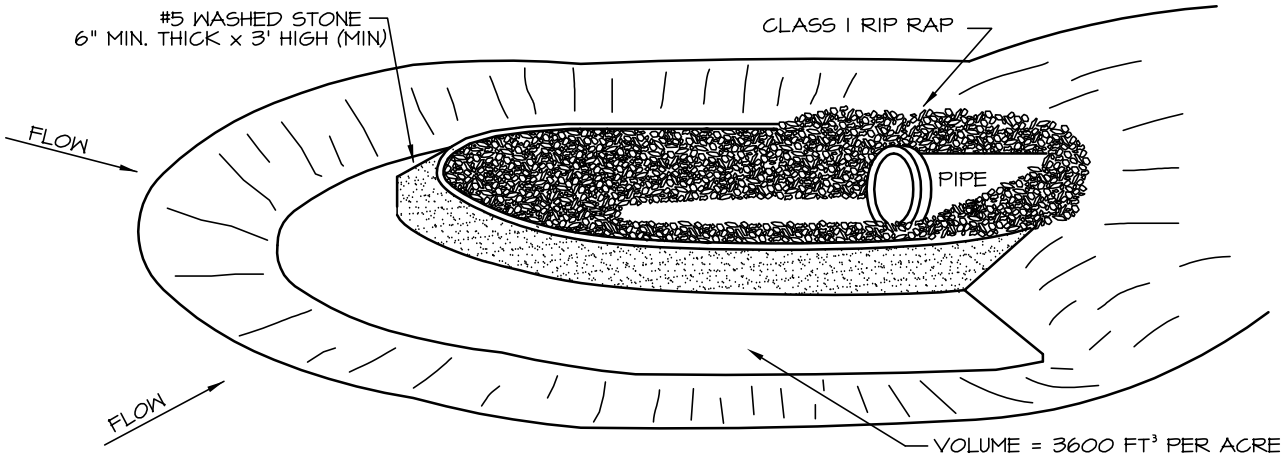
LAND DEVELOPMENT STANDARDS

CONSTRUCTION ENTRANCE TIRE WASH

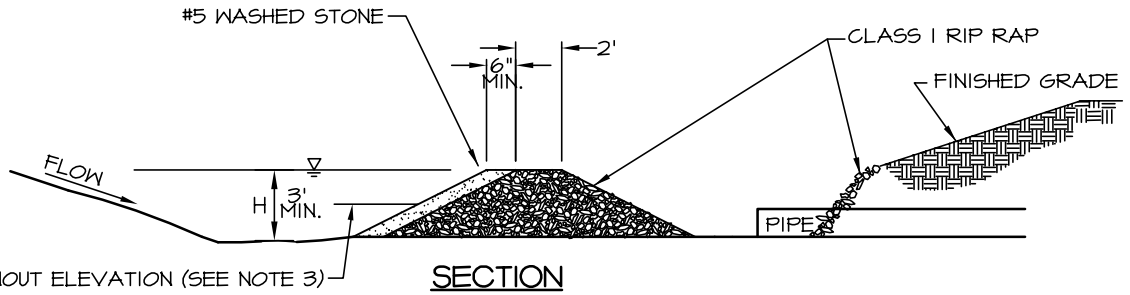
STD. NO.	REV.
30.11B	

GENERAL NOTES

1. GRAVEL AND RIP RAP FILTER BERM BASIN SHOULD BE USED TO PROTECT EXISTING PIPE INVERTS THAT DRAIN 5 ACRES OR LESS.
2. DIMENSIONS SHOWN ARE THE MINIMUM ACCEPTED UNLESS OTHERWISE NOTED.
3. CLEANOUT PRIOR TO SEDIMENT REACHING HALF OF BERM HEIGHT.



PERSPECTIVE VIEW



SECTION

DATA BLOCK

BASIN NO.	DRAINAGE AREA (ACRES)	DENUDED AREA (ACRES)	BASIN VOLUME		BASIN SURFACE AREA		CLEANOUT DEPTH (FT) H/2	H (FEET)
			REQUIRED (CUBIC FT.)	PROVIDED (CUBIC FT.)	REQUIRED (SQ FT.)	PROVIDED (SQ FT.)		

NOT TO SCALE

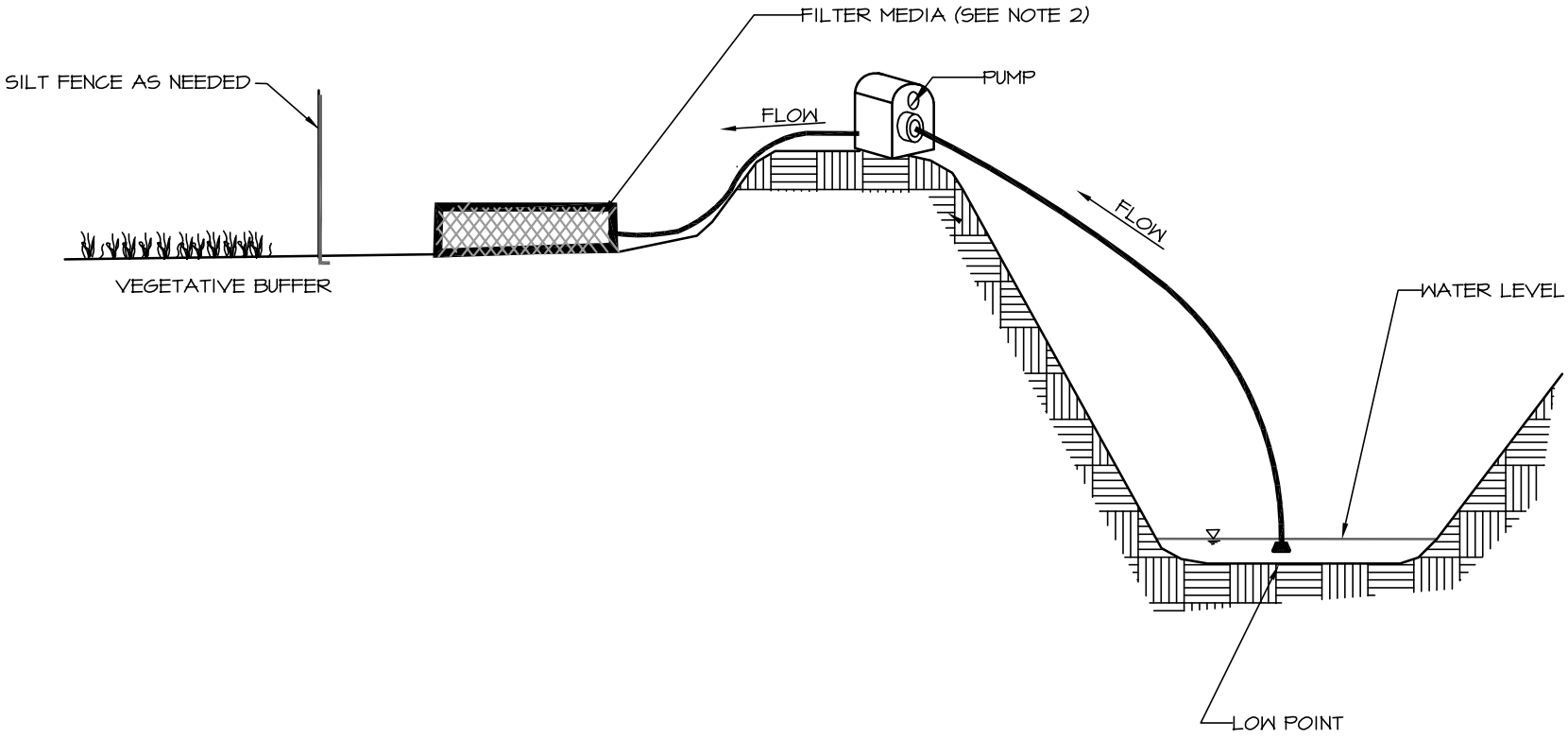
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

GRAVEL AND RIP RAP FILTER BERM BASIN

STD. NO.	REV.
30.12	

NOTE:

1. PRIOR TO INSTALLATION, MANUFACTURER SPECIFICATIONS OF FILTER MEDIA SHALL BE PROVIDED TO THE EROSION CONTROL INSPECTOR FOR APPROVAL AND USE. DISCHARGE FROM FILTER MEDIA SHALL MEET OR EXCEED THE PROVISIONS OF THE CLEAN WATER ACT.
2. ENSURE THAT PUMP PRESSURE DOES NOT EXCEED FILTER MEDIA PRESSURE RATING.
3. FILTER MEDIA MAY BE, BUT NOT LIMITED TO, SAND MEDIA FILTRATION DEVICES, RATED FILTER FABRIC BAGS OR POLYMER BASED DEWATERING PRACTICES.
4. PUMP STRAINER SHALL NOT BE IN CONTACT WITH BOTTOM OF POND.



NOT TO SCALE

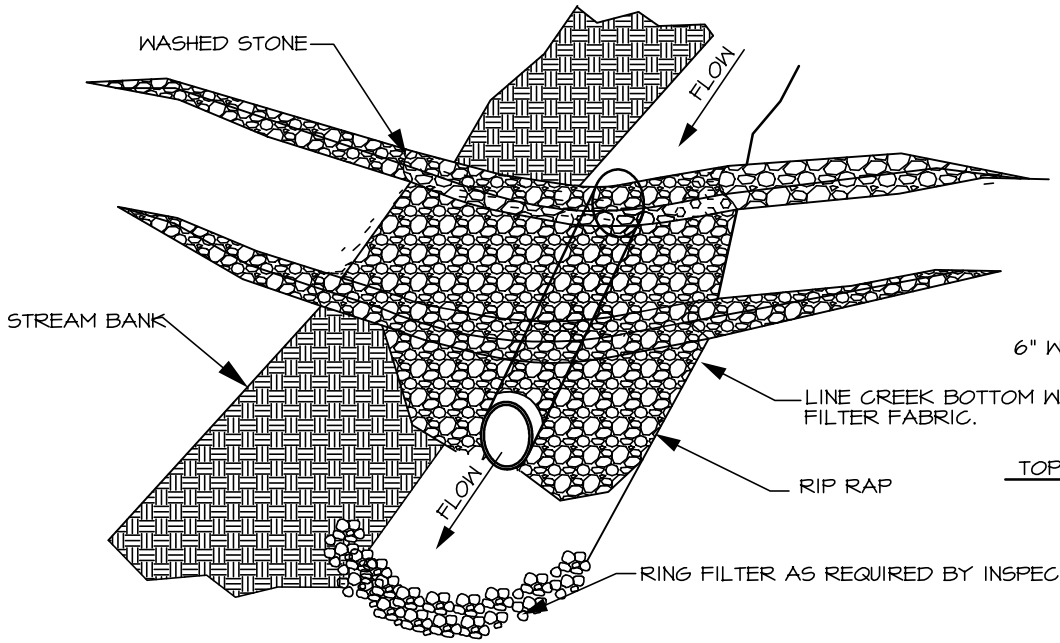
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

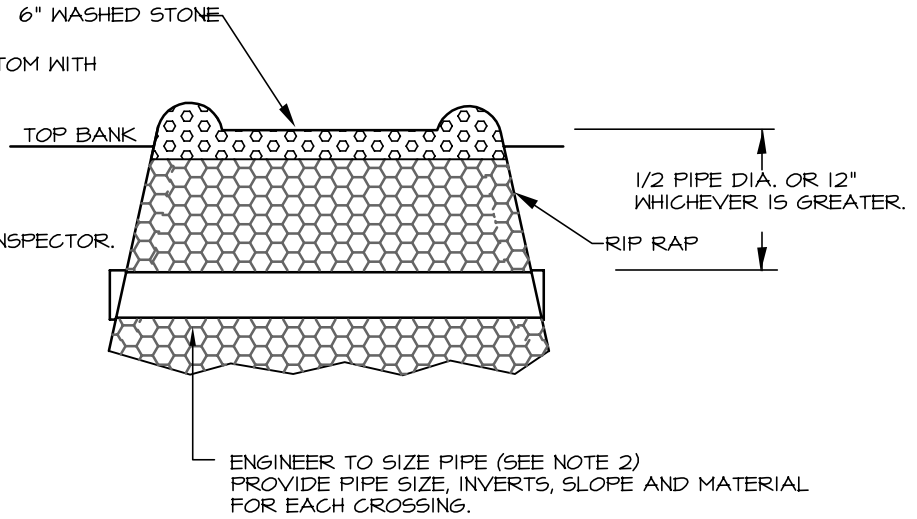
EROSION CONTROL DEWATERING

STD. NO.	REV.
30.13	

NOTES:

1. REMOVE THE STRUCTURE WHEN NO LONGER NEEDED. (NOT TO EXCEED 1 YEAR).
2. AS A MINIMUM, DESIGN THE STRUCTURE TO PASS 2 YEAR PEAK FLOW WITHOUT OVERTOPPING.
3. ENSURE THAT DESIGN FLOW VELOCITY AT THE OUTLET OF THE CROSSING STRUCTURE IS NON-EROSIVE FOR THE RECEIVING STREAM CHANNEL.





ADDITIONAL MEASURES MAY BE REQURIED PER THE TOWN ENGINEER BASED ON SPECIFIC SITE CONDITIONS.

NOT TO SCALE

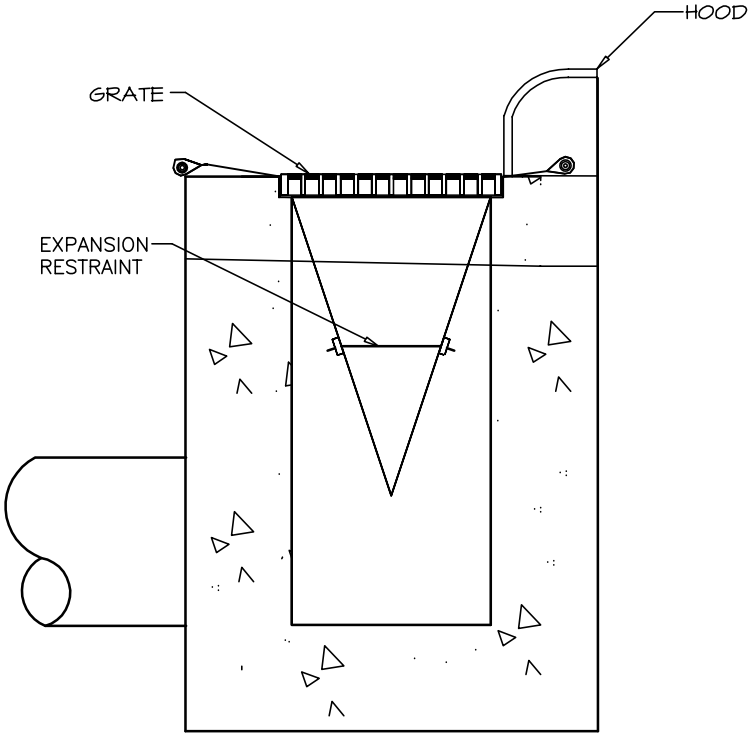
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY STREAM CROSSING

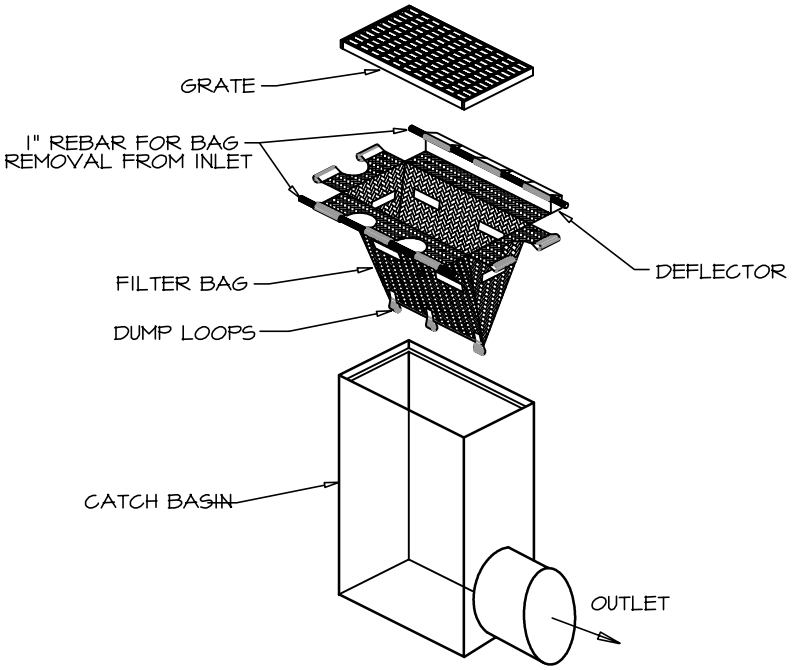
STD. NO.	REV.
30.14	

NOTES

1. INLET MAINTENANCE SHALL BE DOCUMENTED IN PROJECT LOG BOOK.
2. FILTER TYPES SHALL BE APPROVED BY THE TOWN INSPECTOR PRIOR TO INSTALLATION.
3. FILTER BAGS MAY BE REMOVED WHEN SITE IS STABILIZED AT THE DIRECTION OF THE ENGINEER.
4. FILTER BAGS SHALL BE REMOVED PRIOR TO STREET ACCEPTANCE.
5. FILTER BAGS SHALL BE CLEANED OR REPLACED ON A REGULAR BASIS (NOT BE MORE THAN HALF FULL AT ANY TIME).
6. FILTER BAGS SHALL NOT BE ALLOWED IN EXISTING TOWN OR NCDOT ROADS.



SECTION



INSTALLATION

NOT TO SCALE

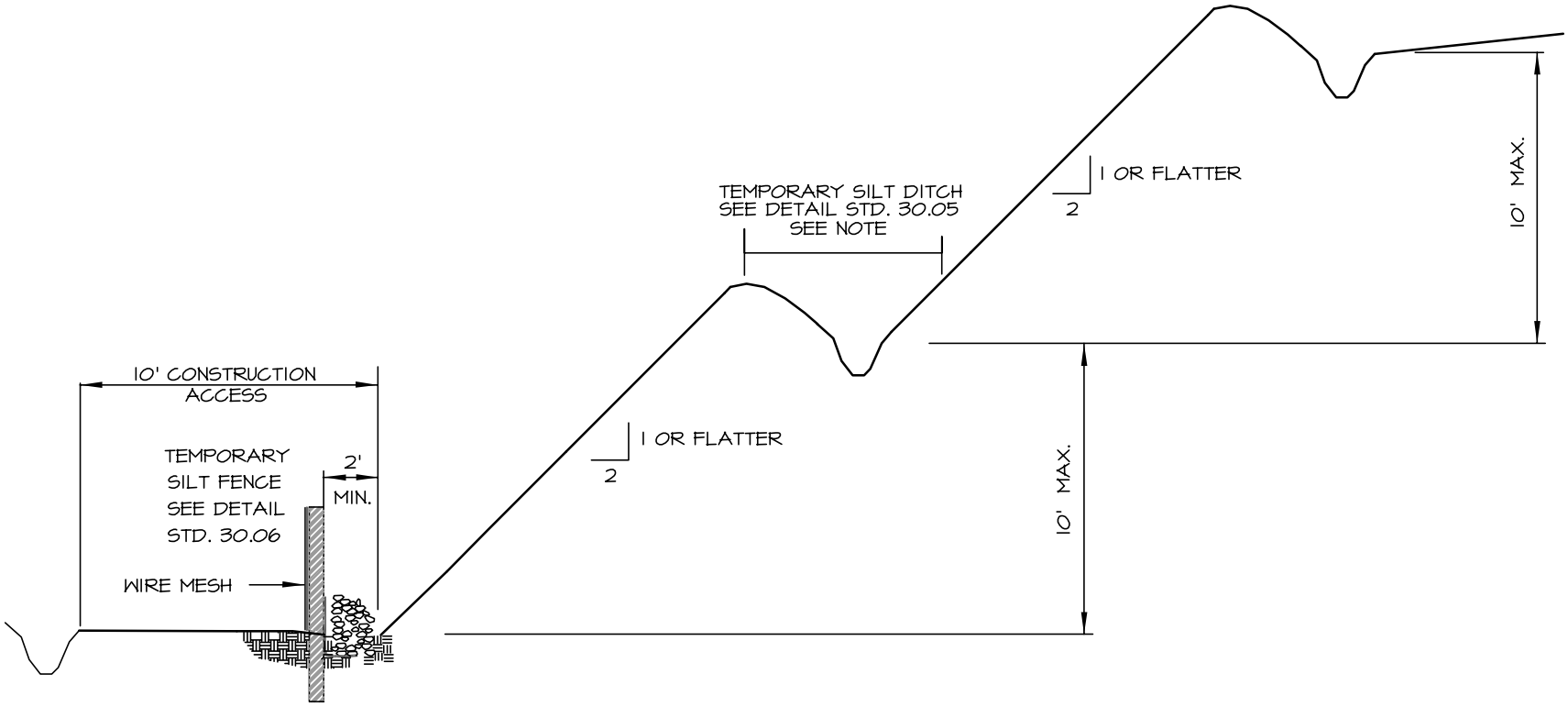
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

CATCH BASIN INLET PROTECTION

STD. NO.	REV.
30.15	

NOTE:

DIVERSION DITCH SHOULD FLOW INTO SEDIMENT BASIN ROCK CHECK DAM, OR SLOPE DRAIN



NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

SLOPE STABILITY

STD. NO.	REV.
30.16	

FOR LATE WINTER AND EARLY SPRING:

SEEDING MIXTURE
RYE (GRAIN) - 120 LB/ACRE
ANNUAL LESPEDEZA (KOBE) - 50 LB/ACRE
(OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE)

SEEDING DATES
JAN. 1 - MAY 1

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL

MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

FOR SUMMER:

SEEDING MIXTURE
GERMAN MILLET - 40 LB/ACRE
(A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE)

SEEDING DATES
MAY 1 - AUG. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL

MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

FOR FALL:

SEEDING MIXTURE
RYE (GRAIN) - 120 LB/ACRE

SEEDING DATES
AUG. 15 - DEC 30

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL

MAINTENANCE
REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

FOR ADDITIONAL INFORMATION, REFER TO NCDENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL (ESCPDM), SECTION 6.10.
FOR PERMANENT SEEDING SPECIFICATIONS, INCLUDING SEED BED PREP, SEASONAL LIMITATIONS FOR SEEDING OPERATIONS, THE KINDS OF GRADES OF FERTILIZERS, THE KINDS OF SEED, AND THE RATES OF APPLICATION OF LIMESTONE, FERTILIZER, AND SEED, REFER TO NCDENR ESCPDM SECTION 6.11

NOT TO SCALE

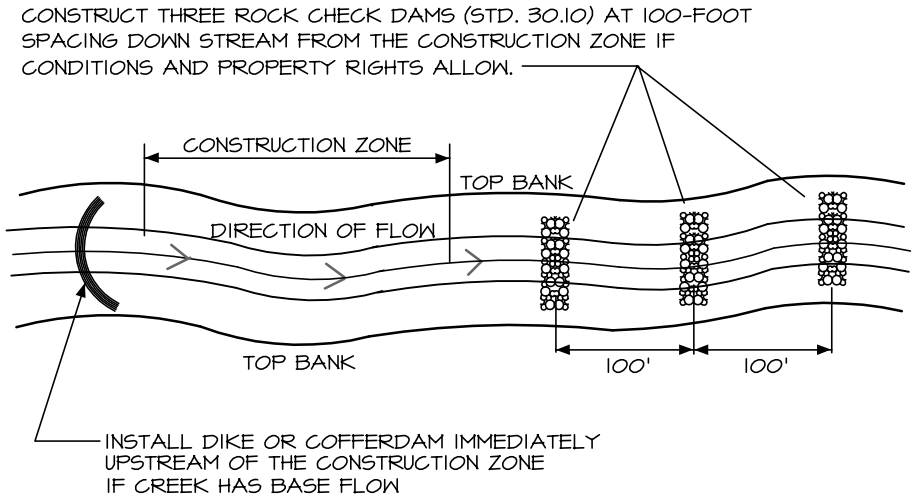
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY SEEDING SCHEDULE

STD. NO.	REV.
30.17	

NOTES:

1. WORK IN CREEK SHALL BE PLANNED TO MINIMIZE THE NUMBER OF DAYS OF DISTURBANCE.
2. THE CONTRACTOR IS TO OBSERVE THE LOCAL WEATHER FORECASTS AND NOT BEGIN WORK IN THE CREEK UNLESS AT LEAST THREE DAYS WITHOUT RAIN IS ANTICIPATED.
3. ALL DISTURBED CREEK BED AND BANKS ARE TO BE STABILIZED PRIOR TO THE END OF EACH WORK DAY.
4. FOR LARGER CREEKS, CONSTRUCTION SHOULD OCCUR ON ONE SIDE OF THE CREEK AT A TIME. THE FIRST SIDE SHOULD BE STABILIZED BEFORE BEGINNING CONSTRUCTION ON THE OPPOSITE SIDE.
5. A TEMPORARY PIPE OR PUMP MAY BE INSTALLED TO CONTROL CREEK FLOW DURING CUNSTRUCTION.



NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

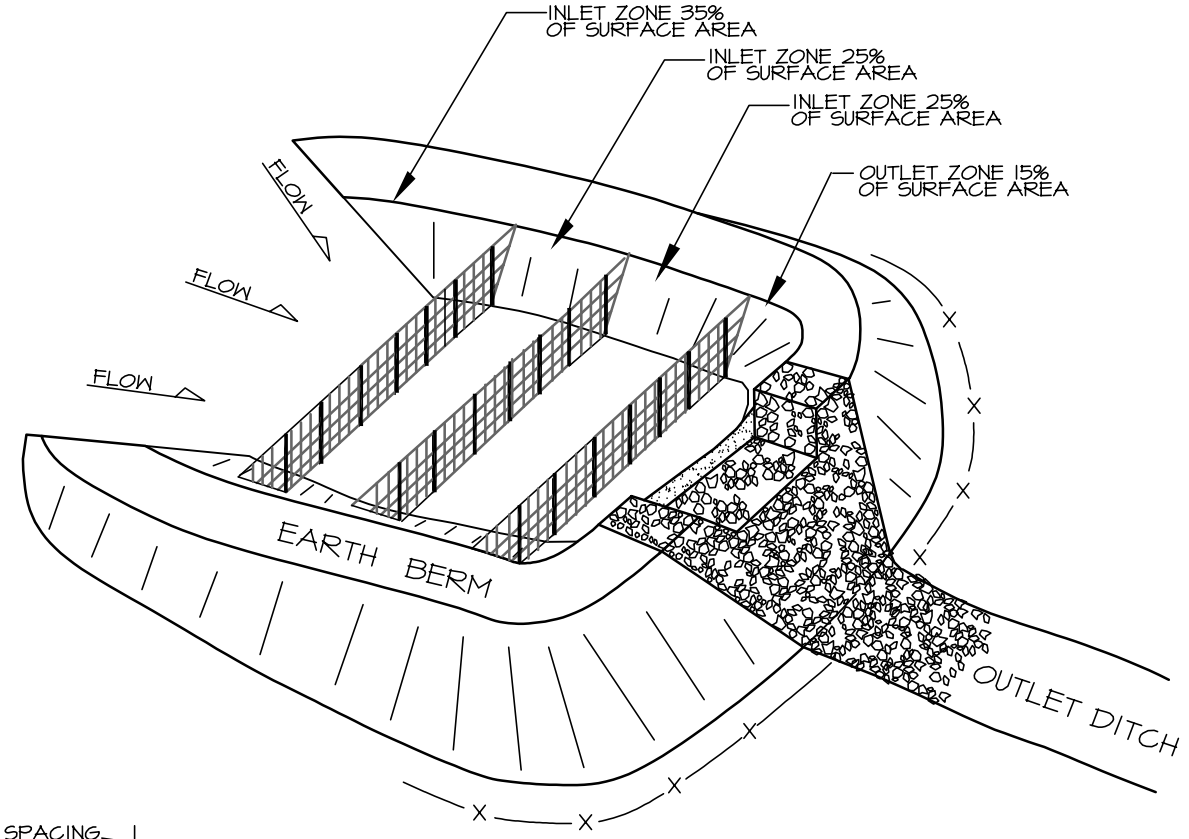
CONSTRUCTION WITHIN CREEK BANK

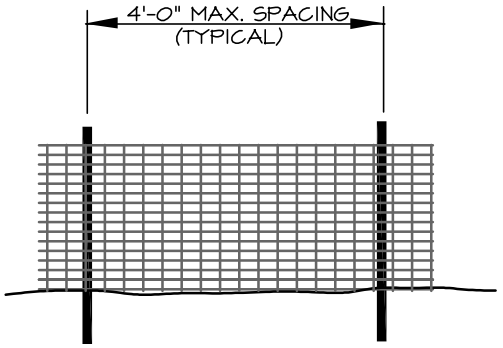
(FOR USE WITH ROAD CROSSINGS, UTILITY CROSSINGS & CULVERT CONSTRUCTION)

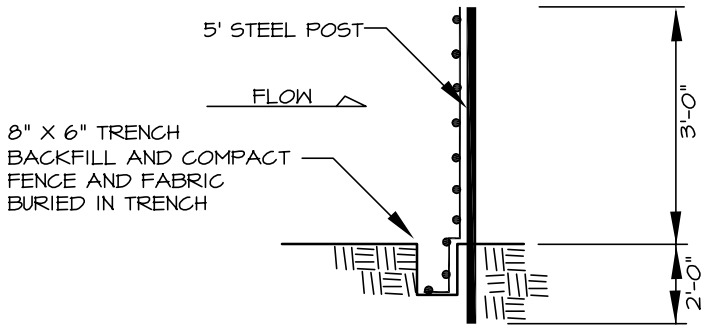
STD. NO.	REV.
30.18	

GENERAL NOTES:

1. DRIVE 5' STEEL POST AT LEAST 24" INTO SOLID GROUND.
2. USE STAPLES 1' APART HORIZONTALLY AND VERTICALLY TO ATTACH THE FILTER FABRIC TO THE WIRE FENCE.
3. MINIMUM BAFFLE SPACING IS 10'.
4. THE FLOOR OF THE BASIN IN THE OUTLET ZONE AND BERMS SHOULD BE SEEDED IMMEDIATELY AFTER THE BASIN IS CONSTRUCTED.
5. REFER TO NCESCPDM SECTION #6.65 FOR ADDITIONAL SPECIFIATIONS.







NOT TO SCALE

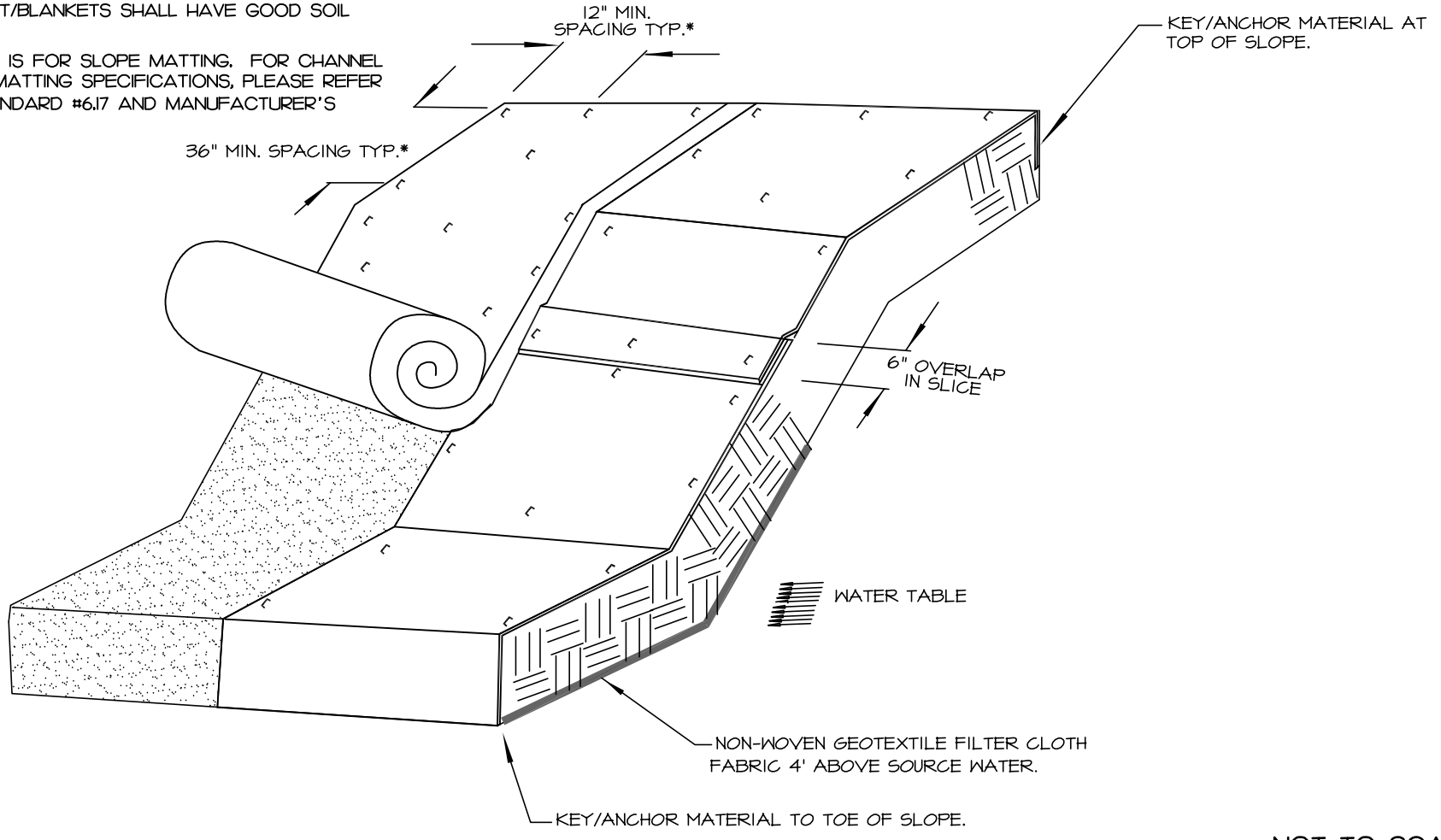
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BAFFLE INSTALLATION

STD. NO.	REV.
30.19	

GENERAL NOTES

1. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
2. * DIMENSIONS SHOWN ARE MINIMUM, MANUFACTURED PRODUCTS MAY HAVE ADDITIONAL REQUIREMENTS THAT MUST BE MET.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, SOIL CLODS, STICKS, GRASS. MAT/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
4. THE DETAIL SHOWN IS FOR SLOPE MATTING. FOR CHANNEL OR PIPE OUTFALL MATTING SPECIFICATIONS, PLEASE REFER TO NCESCPDM STANDARD #6.17 AND MANUFACTURER'S GUIDELINES.



NOT TO SCALE

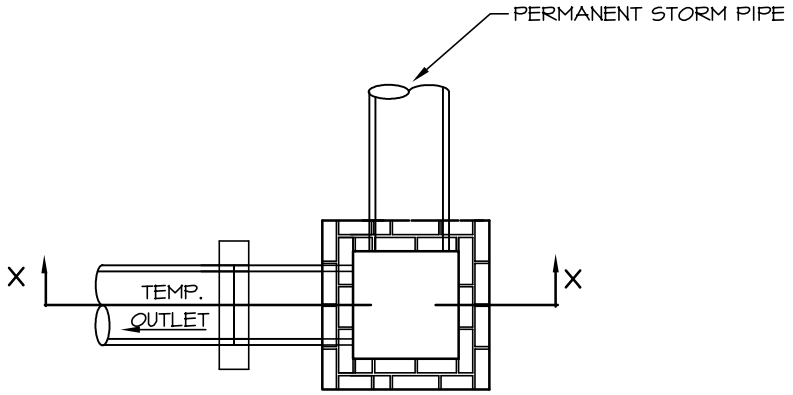
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

EMBANKMENT MATTING DETAIL

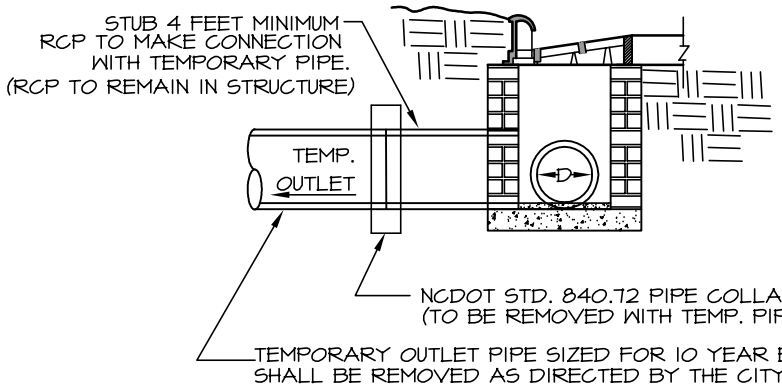
STD. NO.	REV.
30.20	

GENERAL NOTES:

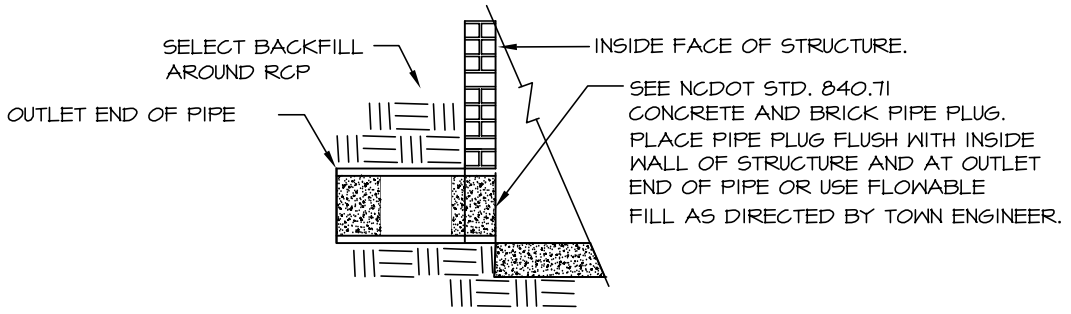
1. SEE APPROPRIATE STANDARD FOR CATCH BASIN, MANHOLE, JUNCTION BOX USED.
2. ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH THE INSIDE WALL, GROUTED AND BRUSHED SMOOTH.



PLAN



SECTION X-X
ACTIVE SYSTEM



PIPE PLUG DETAIL
AFTER REMOVAL OF TEMPORARY PIPE

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BRICK STORM STRUCTURE
WITH TEMPORARY PIPE

STD. NO.	REV.
30.21	

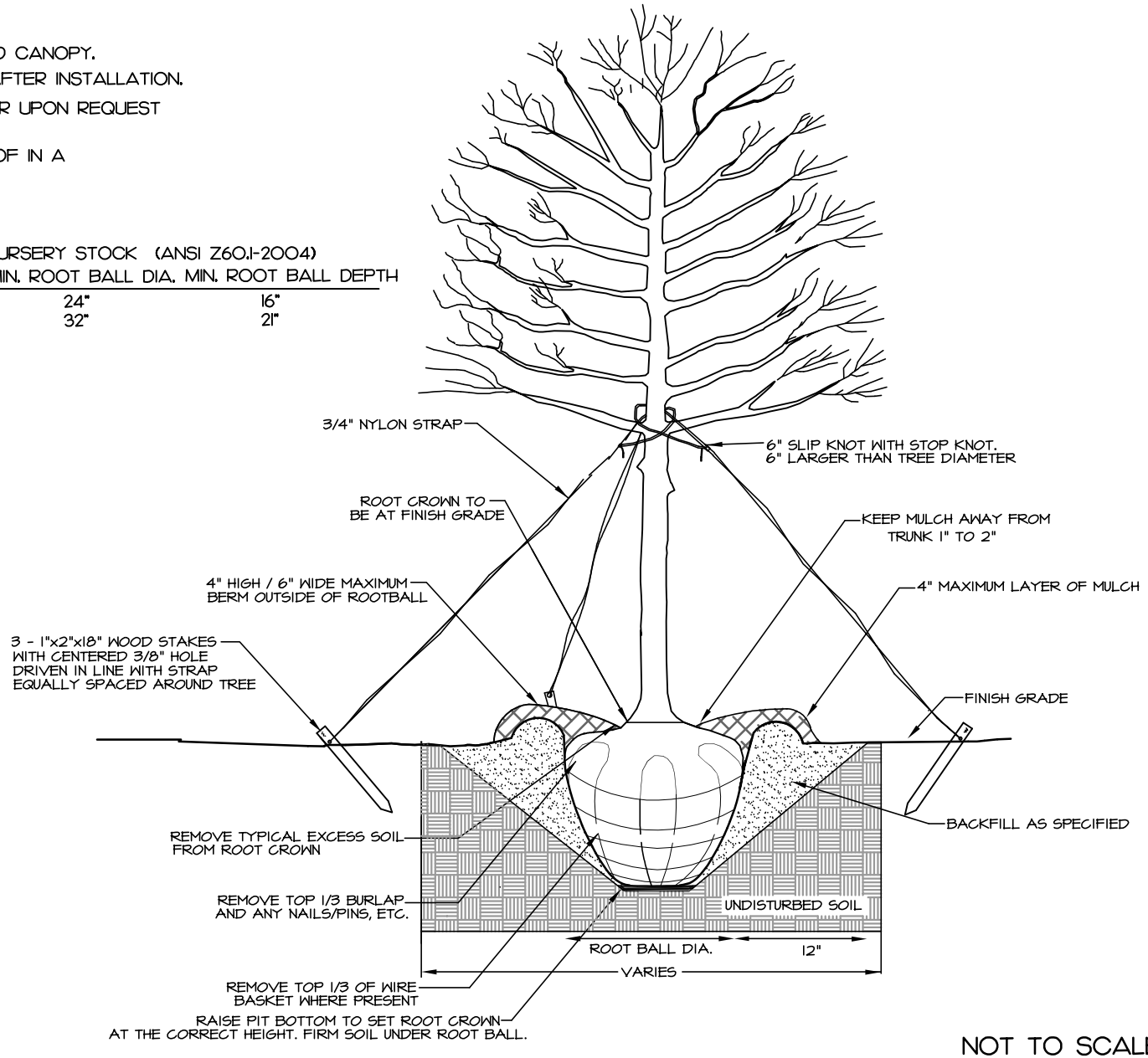
NOTES:

1. REMOVE WIRE AND NYLON TWINE FROM BALL AND CANOPY.
2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
3. STAKING IS REQUIRED FOR ALL TREES IN R.O.W. OR UPON REQUEST OF ARBORIST.
4. REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF IN A LEGAL MANNER.
5. RESEED UNMULCHED, DISTURBED AREAS.

ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004)

for example

CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
2"	12-14'	16'	24"	16"
3"	14-16'	18'	32"	21"



NOT TO SCALE

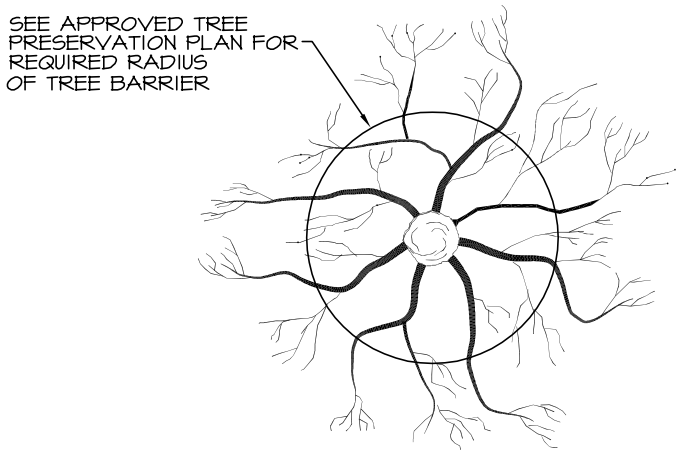
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TREE PLANTING
(FOR SINGLE AND MULTI-STEM TREES)

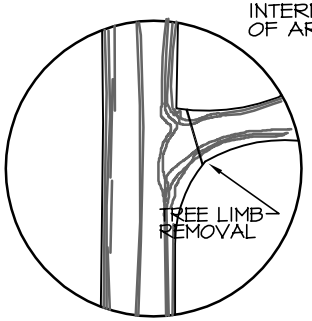
STD. NO.	REV.
40.01	

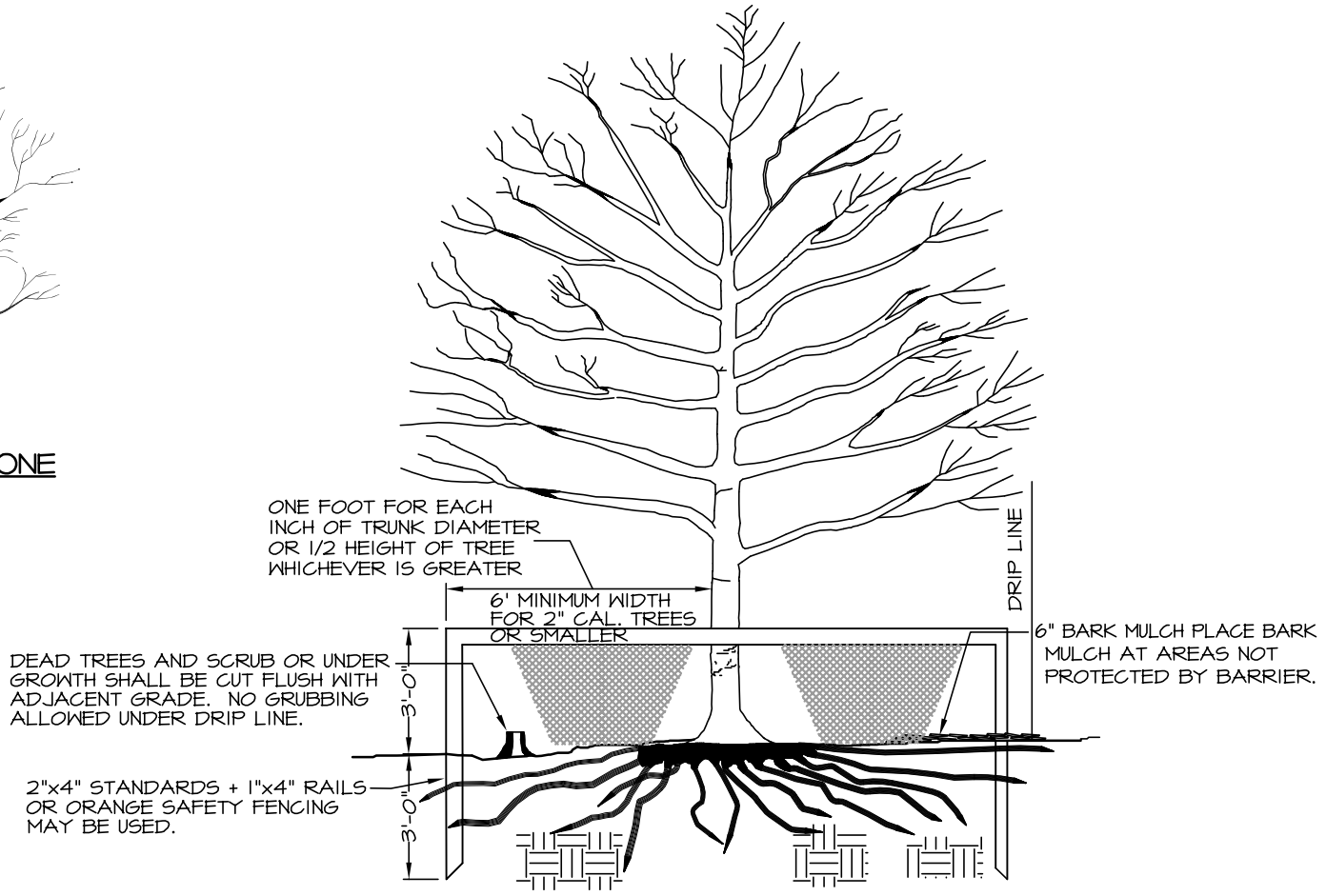
NOTES:

1. REMOVE ALL BARRIERS UPON COMPLETION OF PROJECT.
2. LANDSCAPING PLANS SHALL SHOW THE LOCATIONS OF ALL TREE PROTECTION FENCES.



PLAN VIEW OF ROOT ZONE



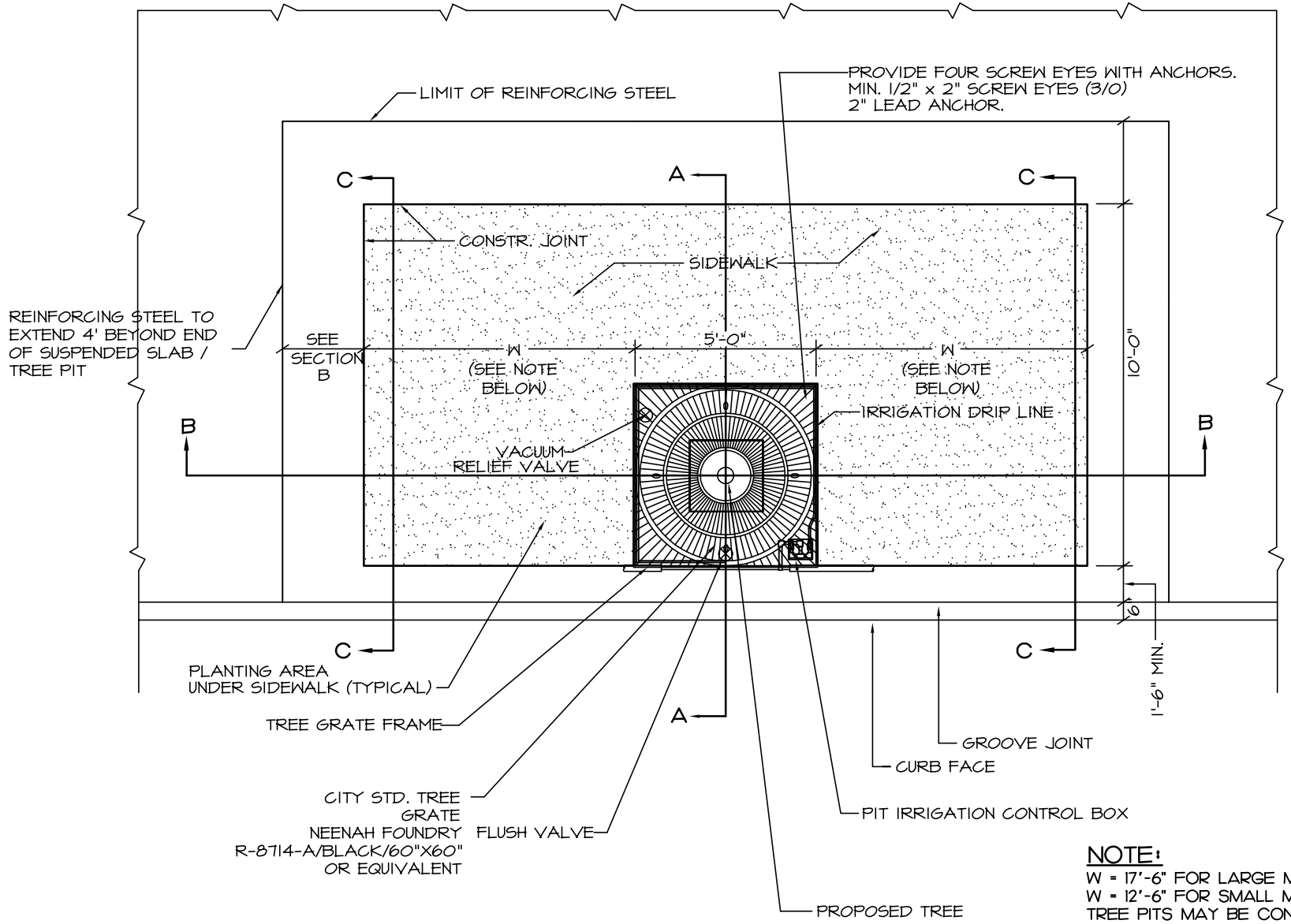


NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TREE PROTECTION DETAIL

STD. NO.	REV.
40.02	



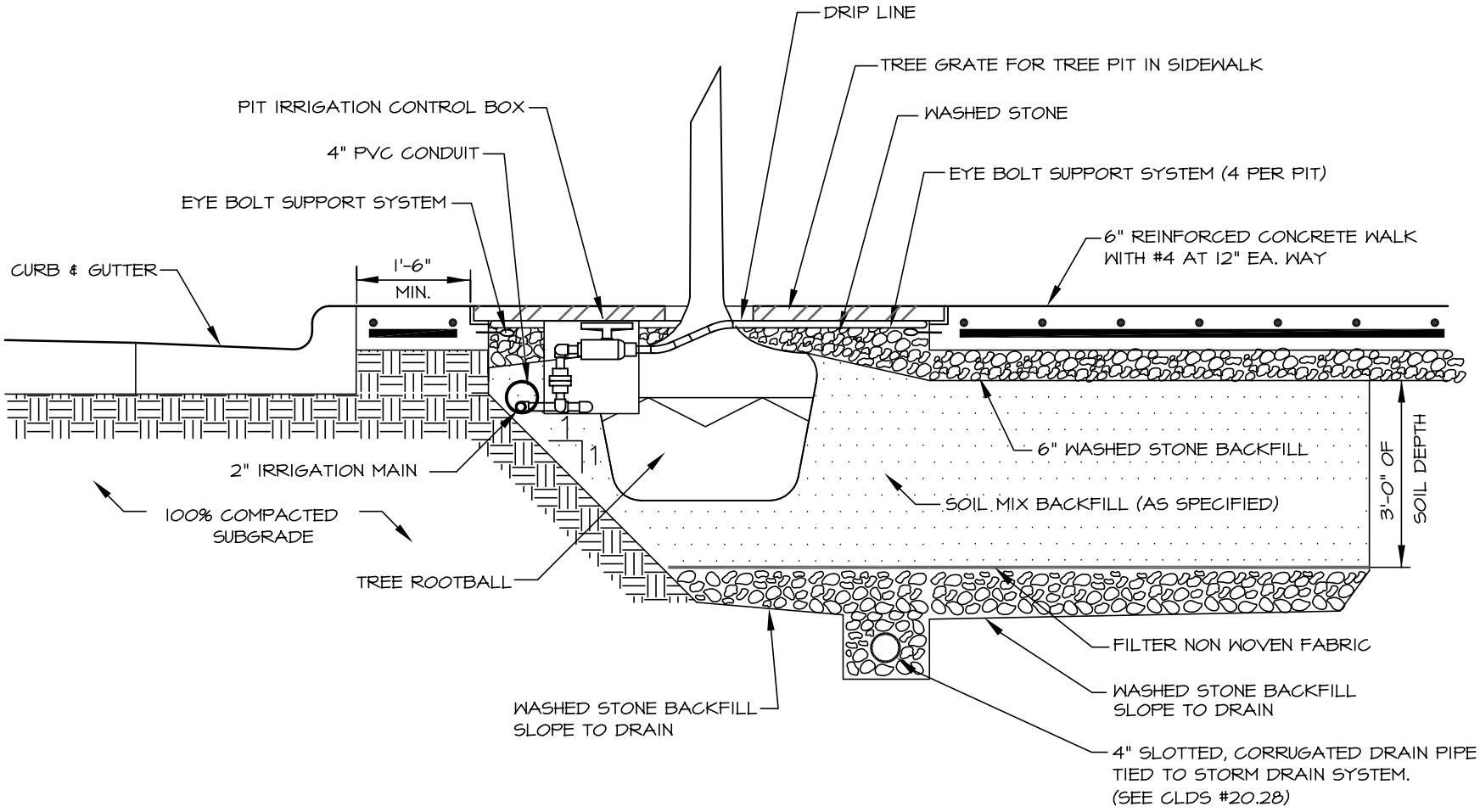
NOTE:
W = 17'-6" FOR LARGE MATURING TREE.
W = 12'-6" FOR SMALL MATURING TREE.
TREE PITS MAY BE CONTIGUOUS

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

LARGE AND SMALL MATURING TREE PIT WITH GRATE IN SIDEWALK (PLAN)

STD. NO.	REV.
40.03A	



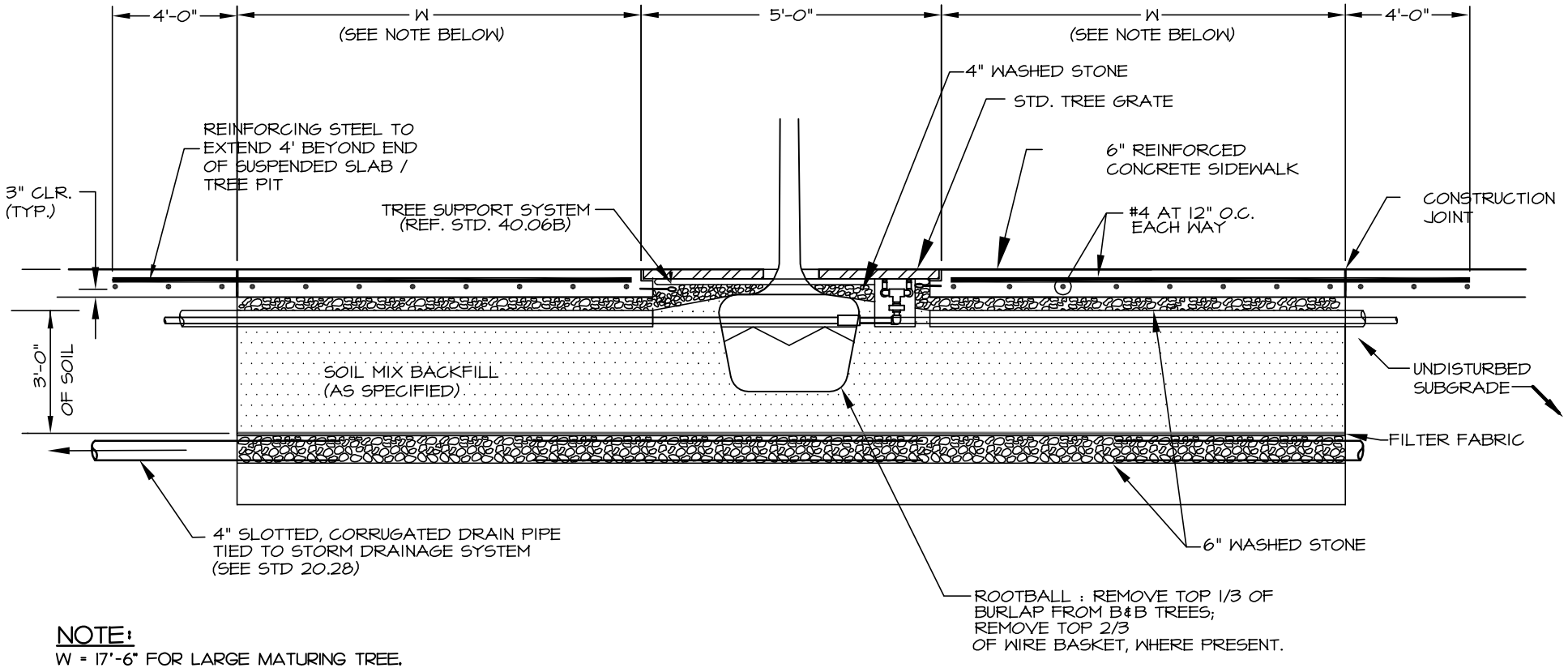
SECTION A

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

LARGE AND SMALL MATURING TREE PIT WITH GRATE IN SIDEWALK (SECTION)

STD. NO.	REV.
40.03B	



NOTE:
W = 17'-6" FOR LARGE MATURING TREE.
W = 12'-6" FOR SMALL MATURING TREE.
TREE PITS MAY BE CONTIGUOUS

SECTION B

NOT TO SCALE

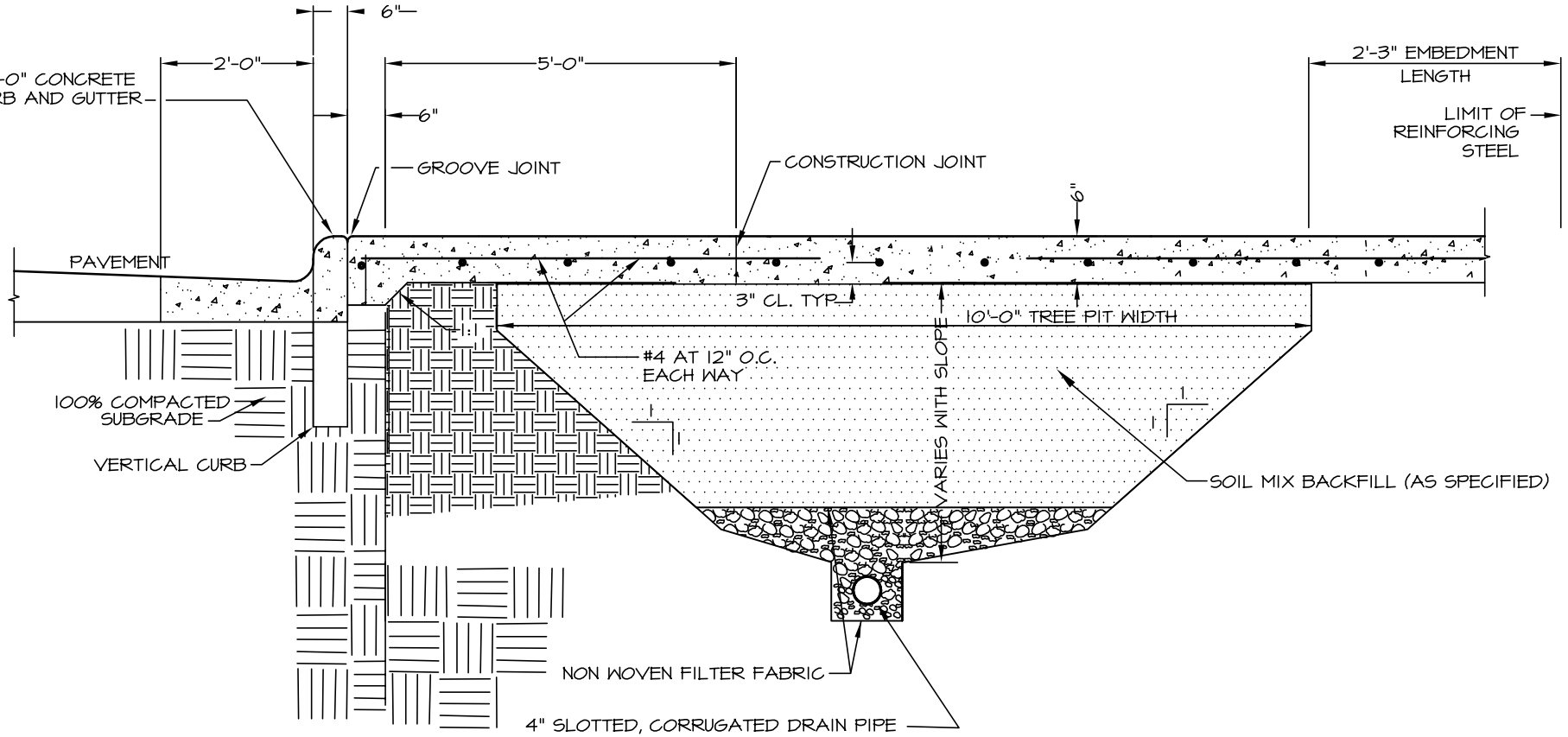
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

LARGE AND SMALL MATURING TREE PIT WITH GRATE IN SIDEWALK (SECTION)

STD. NO.	REV.
40.03C	

GENERAL NOTES:

1. EXPANSION JOINTS ARE PERMITTED AT 40' MIN. SPACING AND NOT LESS THAN 12'-6" FROM CENTER OF TREE GRATE.
2. SEE STD 10.22 FOR DETAIL OF GROOVE JOINT.
3. CONCRETE SHALL BE 3600 PSI. IN 28 DAYS.
4. ALL REINFORCING STEEL SHALL BE GRADE 60.
5. USE REINFORCED STEEL BAR SUPPORTS IN COMPLIANCE WITH NCDOT STANDARD SPECIFICATION 970-4.



SECTION C

NOT TO SCALE

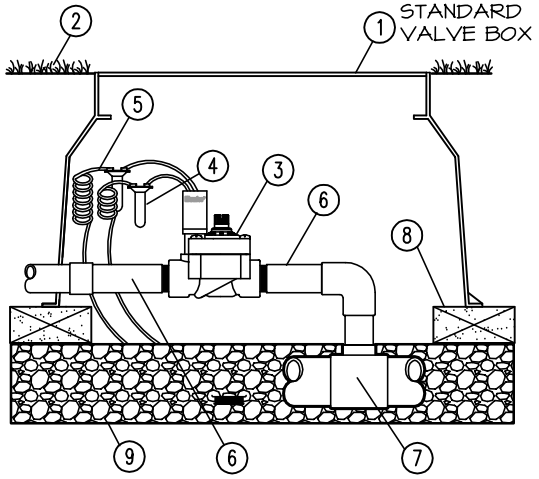
NOTE

A DRAINAGE SYSTEM IS REQUIRED AS SHOWN FOR ALL IRRIGATED PLANTING AREAS LOCATED ADJACENT TO STREET.

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

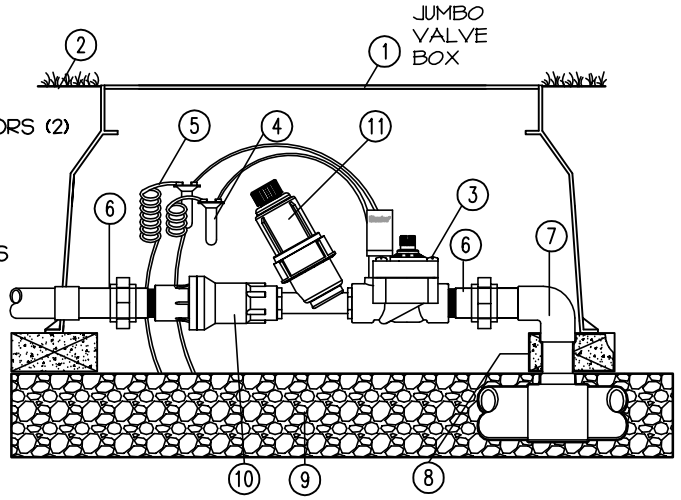
LARGE AND SMALL MATURING TREE PIT WITH GRATE IN SIDEWALK (SECTION)

STD. NO.	REV.
40.03D	



CONTROL VALVE

2 FINISH GRADE
3 CONTROL VALVE WITH FLOW CONTROL
4 WATERPROOF CONNECTORS (2)
5 18-24" COILED WIRE
6 SCH 80 T.O.E. NIPPLE
7 MAIN LINE PIPE & FITTINGS
8 BRICK SUPPORTS (4)
9 3/4" MINUS WASHED GRAVEL, MIN. 3" DEPTH
10 PRESSURE REGULATOR
11 FILTER



DRIP IRRIGATION W/ PRESSURE REGULATOR AND FILTER

NOT TO SCALE

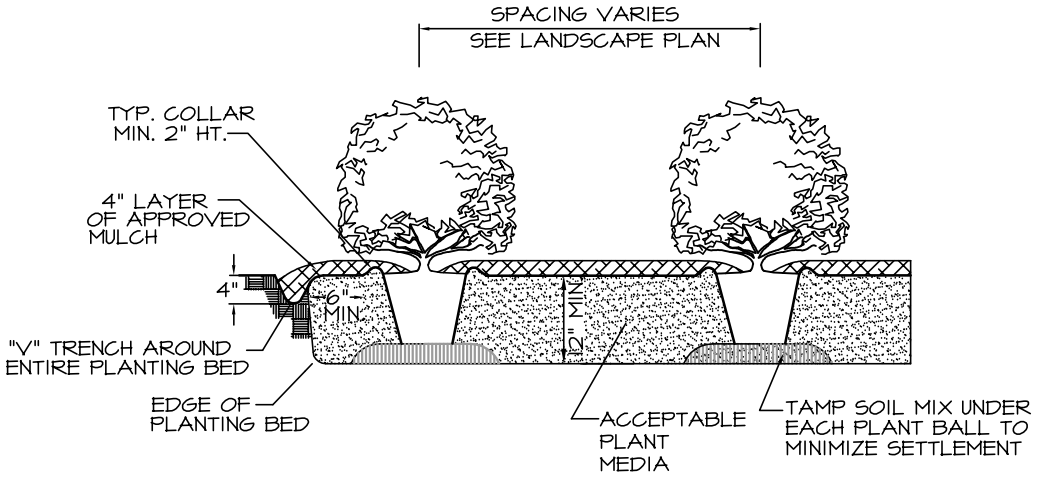
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TYPICAL VALVE AND VALVE BOX INSTALLATION

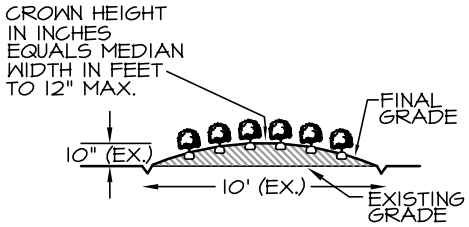
STD. NO.	REV.
40.04	

NOTES:

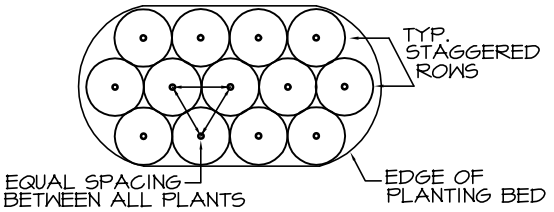
1. SCARIFY ROOT MASS OF CONTAINERIZED PLANT MATERIAL.
2. INSTALL CONTAINERIZED PLANTS AT FINSHED GRADE
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
5. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



TYPICAL PLANTING BED DETAIL



TYPICAL BED CROWNING



TYPICAL PLANTING BED PLAN

NOT TO SCALE

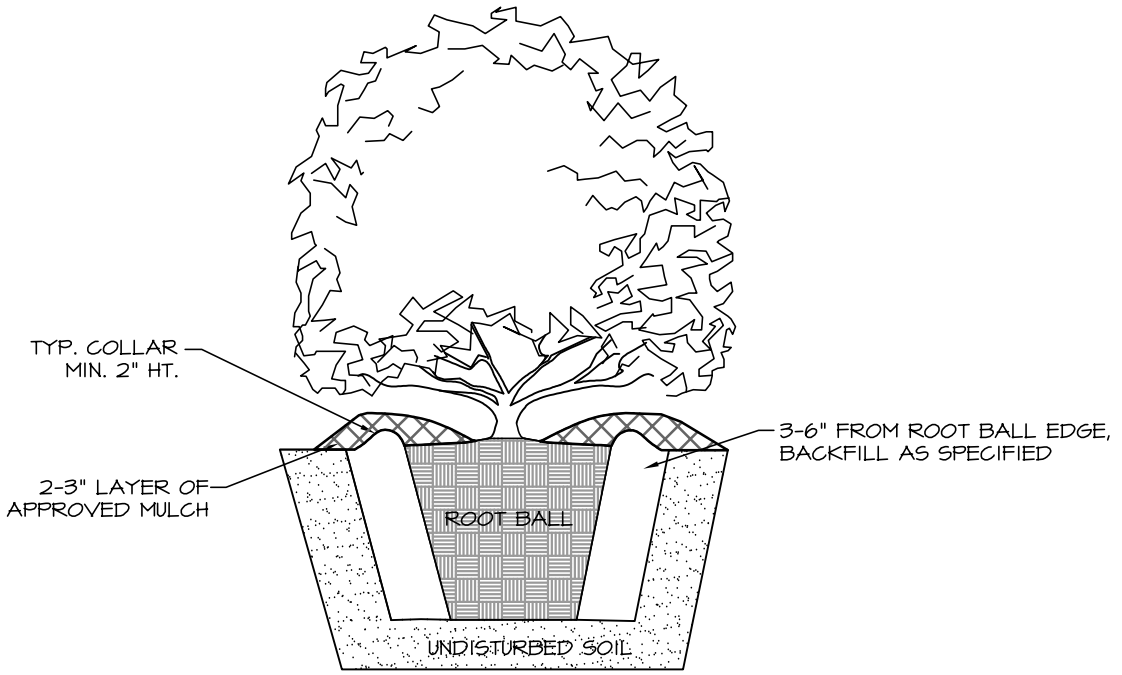
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SHRUB PLANTING BED

STD. NO.	REV.
40.05A	

NOTES:

1. SCARIFY ROOT MASS OF CONTAINERIZED PLANT MATERIAL.
2. INSTALL CONTAINERIZED PLANTS AT FINSHED GRADE
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
5. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



NOT TO SCALE

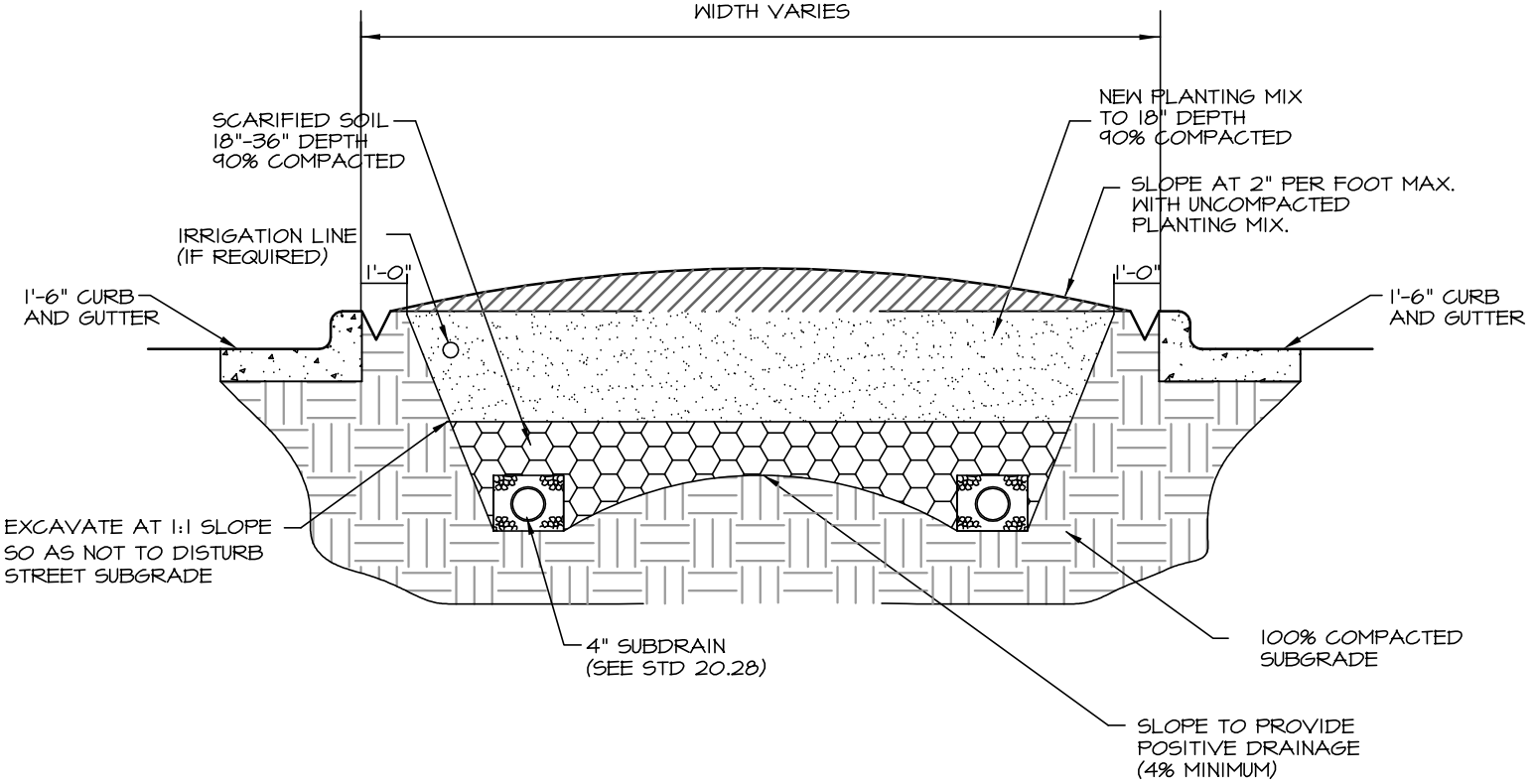
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

INDIVIDUAL SMALL SHRUB/TREE PLANTING

STD. NO.	REV.
40.05B	

NOTES:

1. FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS BEFORE PREPARING SOIL AND PLANTING TREES.
2. REMOVE SOIL TO A DEPTH OF 18". SCARIFY, TILL OR OTHERWISE LOOSEN THE REMAINING SOIL TO A DEPTH OF 18". ADD NEW PLANTING MIX AS SPECIFIED.
3. SUBSURFACE DRAINAGE SHALL BE INSTALLED IN ALL MEDIANS AND TIED INTO EXISTING STORM DRAIN SYSTEM. A 4 INCH PERFORATED CORRUGATED PVC DRAIN OR HDPE PER AASHTO M252, TYPE CP (SINGLE-WALL, CORRUGATED) SHALL BE INSTALLED IN EACH MEDIAN AT THE BOTTOM OF THE EXCAVATED AREA. DRAIN SHALL BE COVERED WITH A MINIMUM 6 INCHES OF #57 WASHED STONE, THEN WRAPPED WITH A SPECIFIED NON-WOVEN GEOTEXTILE FABRIC. SPECIAL CARE SHALL BE EXERCISED WHEN FILLING MEDIANS WITH SOIL SO NOT TO CRUSH OR DAMAGE THE DRAINAGE SYSTEM.



NOT TO SCALE

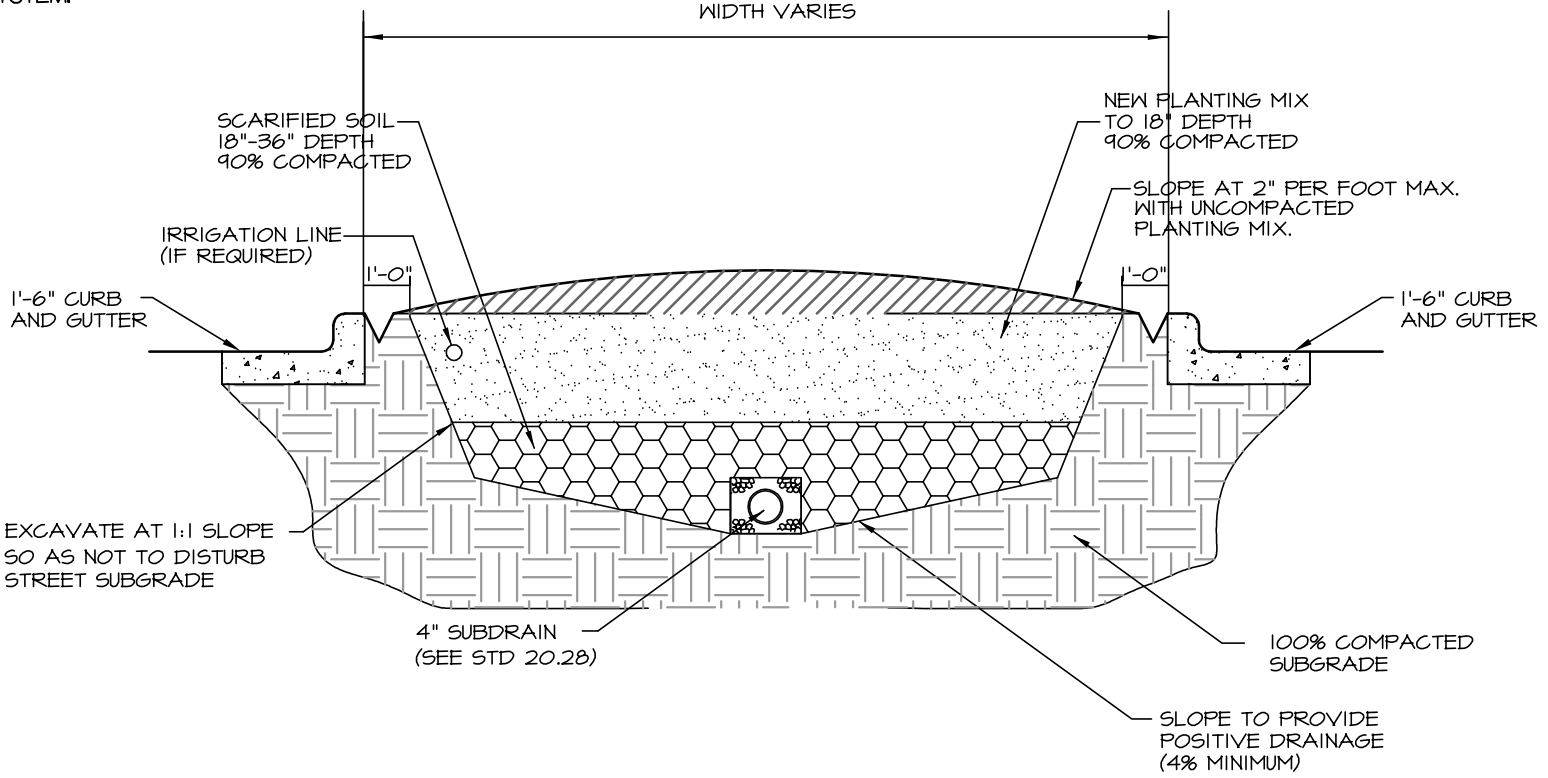
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

MEDIAN GREATER THAN 120 INCHES EXCAVATION, DRAINAGE AND BACKFILL

STD. NO.	REV.
40.08A	

NOTES:

1. FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS BEFORE PREPARING SOIL AND PLANTING TREES.
2. REMOVE SOIL TO A DEPTH OF 18". SCARIFY, TILL OR OTHERWISE LOOSEN THE REMAINING SOIL TO A DEPTH OF 18". ADD NEW PLANTING MIX AS SPECIFIED.
3. SUBSURFACE DRAINAGE SHALL BE INSTALLED IN ALL MEDIANS AND TIED INTO EXISTING STORM DRAIN SYSTEM. A 4 INCH PERFORATED CORRUGATED PVC DRAIN OR HDPE PER AASHTO M252, TYPE CP (SINGLE-WALL, CORRUGATED) SHALL BE INSTALLED IN EACH MEDIAN AT THE BOTTOM OF THE EXCAVATED AREA. DRAIN SHALL BE COVERED WITH A MINIMUM 6 INCHES OF #57 WASHED STONE, THEN WRAPPED WITH A SPECIFIED NON-WOVEN GEOTEXTILE FABRIC. SPECIAL CARE SHALL BE EXERCISED WHEN FILLING MEDIANS WITH SOIL SO NOT TO CRUSH OR DAMAGE THE DRAINAGE SYSTEM.



NOT TO SCALE

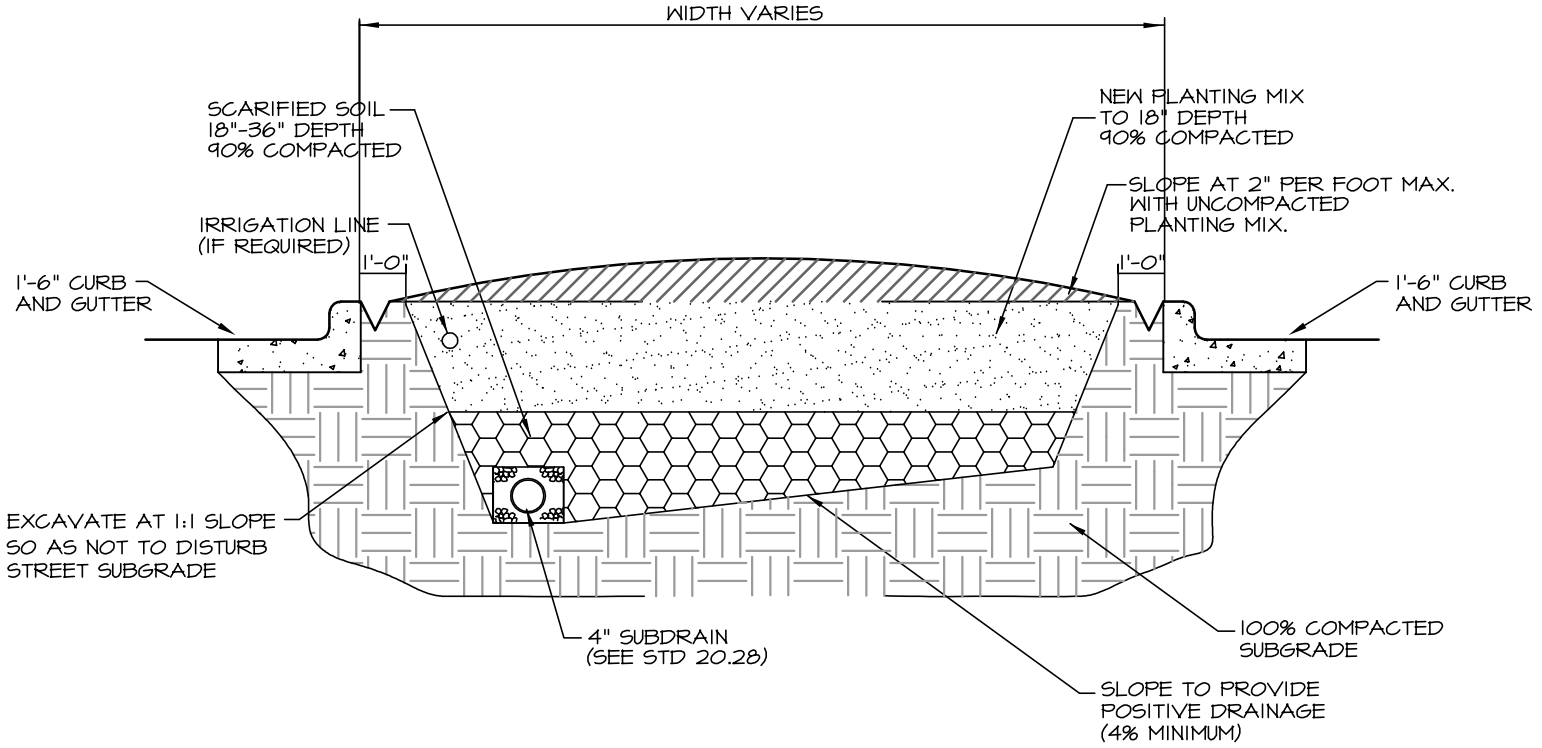
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

73 TO 120 INCH MEDIAN EXCAVATION, DRAINAGE AND BACKFILL

STD. NO.	REV.
40.08B	

NOTES:

1. FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS BEFORE PREPARING SOIL AND PLANTING TREES.
2. REMOVE SOIL TO A DEPTH OF 18". SCARIFY, TILL OR OTHERWISE LOOSEN THE REMAINING SOIL TO A DEPTH OF 18". ADD NEW PLANTING MIX AS SPECIFIED.
3. SUBSURFACE DRAINAGE SHALL BE INSTALLED IN ALL MEDIANS AND TIED INTO EXISTING STORM DRAIN SYSTEM. A 4 INCH PERFORATED CORRUGATED PVC DRAIN OR HDPE PER AASHTO M252, TYPE CP (SINGLE-WALL, CORRUGATED) SHALL BE INSTALLED IN EACH MEDIAN AT THE BOTTOM OF THE EXCAVATED AREA. DRAIN SHALL BE COVERED WITH A MINIMUM 6 INCHES OF #57 WASHED STONE, THEN WRAPPED WITH A SPECIFIED NON-WOVEN GEOTEXTILE FABRIC. SPECIAL CARE SHALL BE EXERCISED WHEN FILLING MEDIANS WITH SOIL SO NOT TO CRUSH OR DAMAGE THE DRAINAGE SYSTEM.



NOT TO SCALE

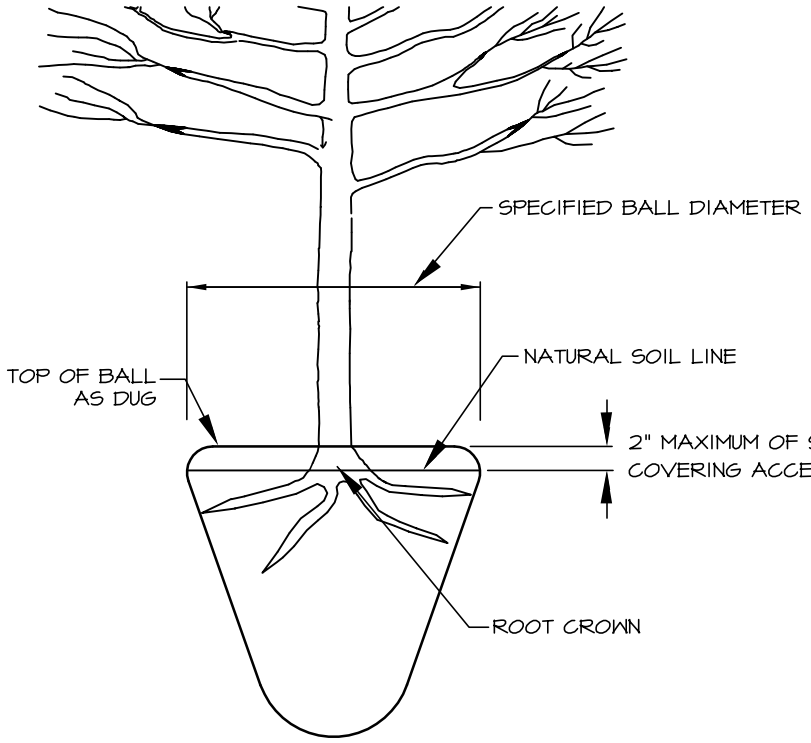
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

48 TO 72 INCH MEDIAN EXCAVATION, DRAINAGE AND BACKFILL

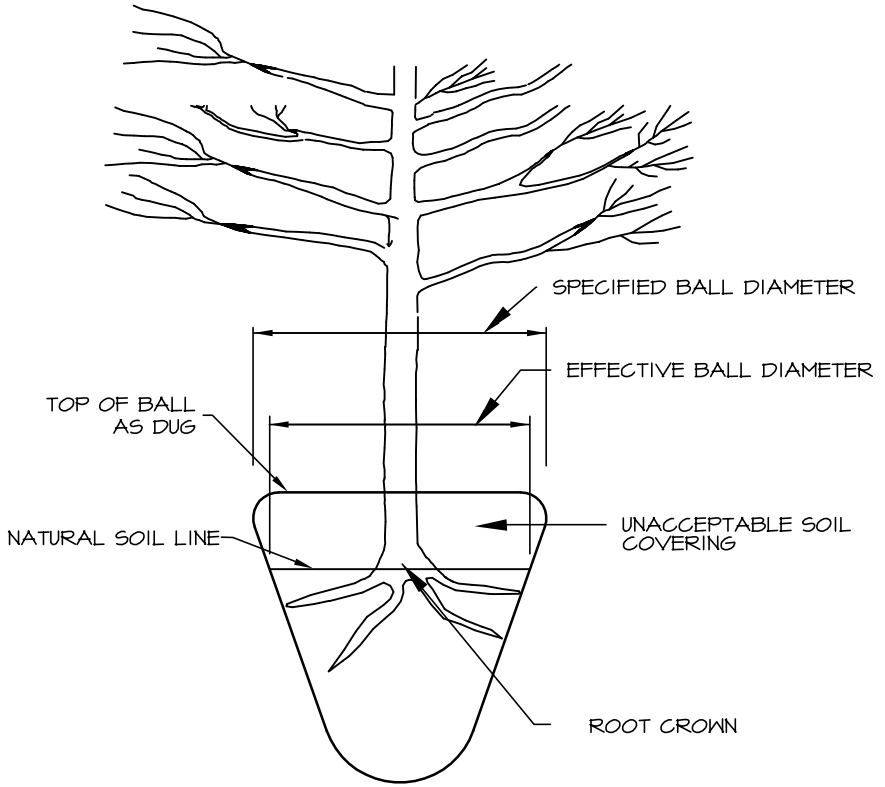
STD. NO.	REV.
40.08C	

NOTE:

A ROOT FLARE EXCAVATION FOR ALL TREES SPECIFIED WILL BE DONE BY THE TOWN ARBORIST TO ENSURE THAT TREES WERE NOT PLANTED/GROWN TOO DEEPLY AT SOURCE (NURSERY). LANDSCAPE CONTRACTOR SHALL HAVE SUPPLIER MARK GROUND LEVEL LINE ABOVE ROOT BALL. IF TOWN ARBORIST DETERMINES THAT THERE IS EXCESSIVE SOIL OVER THE ROOT CROWN, THESE TREES WILL BE REJECTED.



ACCEPTABLE CONDITION
(AS DELIVERED)



UNACCEPTABLE CONDITION
(AS DELIVERED)

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ROOT FLARE DEPTHS

(TREE ROOT BALL CONDITION ON TREES FROM SUPPLIERS)

STD. NO.	REV.
40.09	

PLANTINGS IN STREET RIGHT-OF-WAY

GENERAL NOTES

1. TREE GRATES AND ASSOCIATED IRRIGATION SYSTEMS ARE REQUIRED AT VARIOUS LOCATIONS IN THE UPTOWN AREAS TO COMPLY WITH THE UPTOWN STREETSCAPE GUIDELINES AND OTHER ZONING REQUIREMENTS. ALL OTHER INSTALLATIONS OF IRRIGATION SYSTEMS WITHIN THE RIGHT-OF-WAY OF TOWN OR STATE MAINTAINED STREETS REQUIRE AN ENCROACHMENT AGREEMENT EXECUTED THROUGH THE TOWN OR NCDOT. THE TOWN'S ENCROACHMENT AGREEMENT REVIEW/APPROVAL PROCESS MAY INCLUDE ADDITIONAL REQUIREMENTS. CONTACT THE TOWN OR NCDOT FOR ADDITIONAL INFORMATION REGARDING COST, SUBMITTAL, AND LIABILITY INSURANCE COVERAGE REQUIREMENTS.
2. A DRAINAGE SYSTEM IS REQUIRED AS SHOWN FOR ALL IRRIGATED PLANTING AREAS LOCATED ADJACENT TO STREETS. ALL IRRIGATION/DRAINAGE SYSTEMS NOT REQUIRED BY THE UPTOWN STREET GUIDELINES REQUIRE AN ENCROACHMENT AGREEMENT EXECUTED BY THE TOWN OR NCDOT FOR TOWN OR STATE-MAINTAINED ROADS, RESPECTIVELY. CONTACT THE TOWN OR NCDOT FOR ADDITIONAL INFORMATION REGARDING COST, SUBMITTAL AND LIABILITY INSURANCE COVERAGE REQUIREMENTS.
3. AN INSPECTION SCHEDULE IS NEEDED FOR TREES THAT WILL BE PLANTED IN THE STREET RIGHT OF WAY DUE TO ZONING OR OTHER REQUIREMENTS. LANDSCAPE INSPECTION INCLUDE THE FOLLOWING:

   SUBDRAINAGE INSPECTION
   TREE PIT/WELL OR PLANTING STRIP INSPECTION
   SOIL MIX APPROVALS/INSPECTIONS
   TREE APPROVALS/INSPECTIONS - PRIOR TO PURCHASING THE TREES, TO BE MADE BY THE TOWNS REPRESENTATIVE
   THIS MAY INCLUDE PHOTO APPROVAL OR PARTICIPATION IN TAGGING THE TREES.
   TREE PLANTING INSPECTION
   IRRIGATION INSPECTION
   FINAL WALK THROUGH

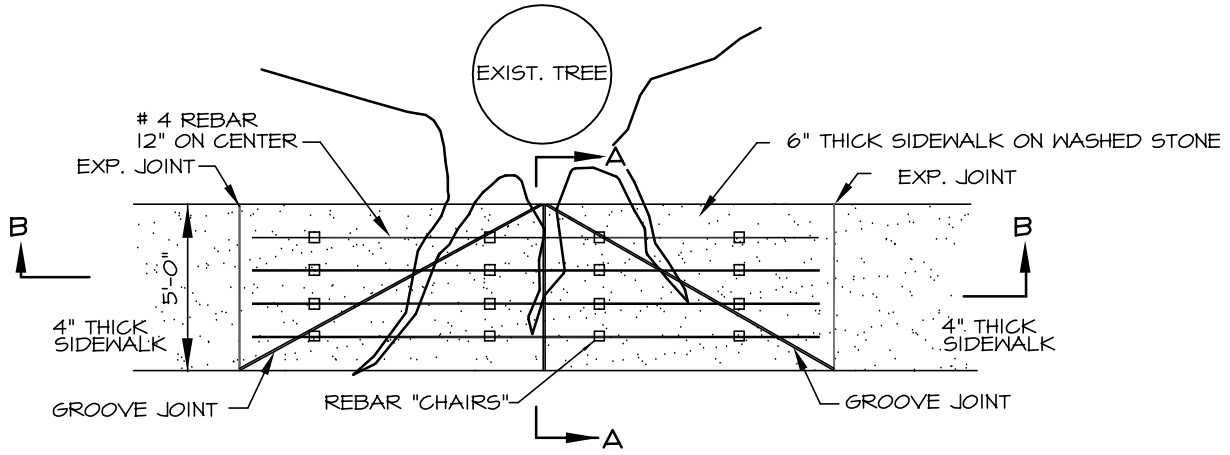
ALL OF THE ABOVE INSPECTIONS WILL BE PERFORMED BY THE TOWN'S REPRESENTATIVE, EXCEPT FOR THE TREE APPROVALS AS NOTED.

NOT TO SCALE

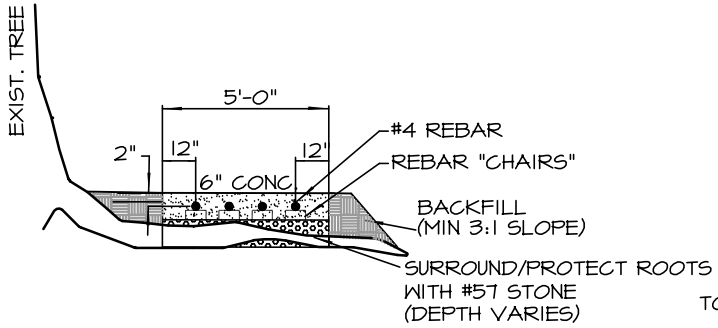
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TREE PLANTING-NOTES
(DRAINAGE AND INSPECTION)

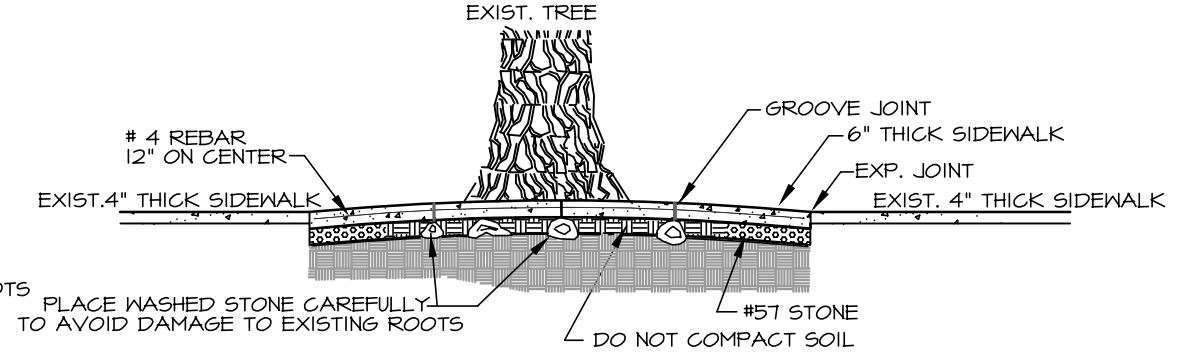
STD. NO.	REV.
40.10	



PLAN VIEW



SECTION A-A



SECTION B-B

NOT TO SCALE

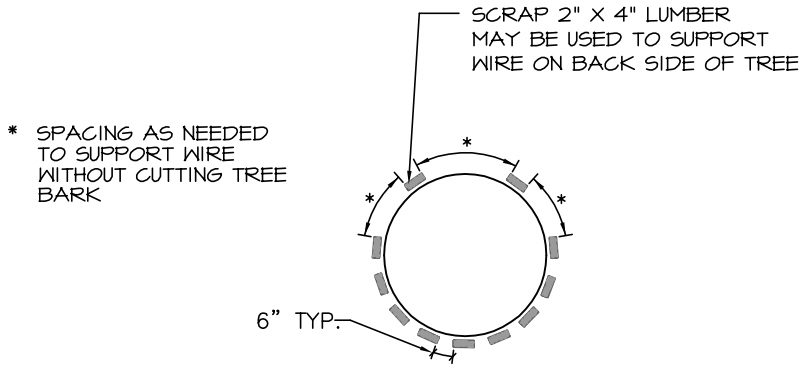
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

BRIDGING TREE ROOTS

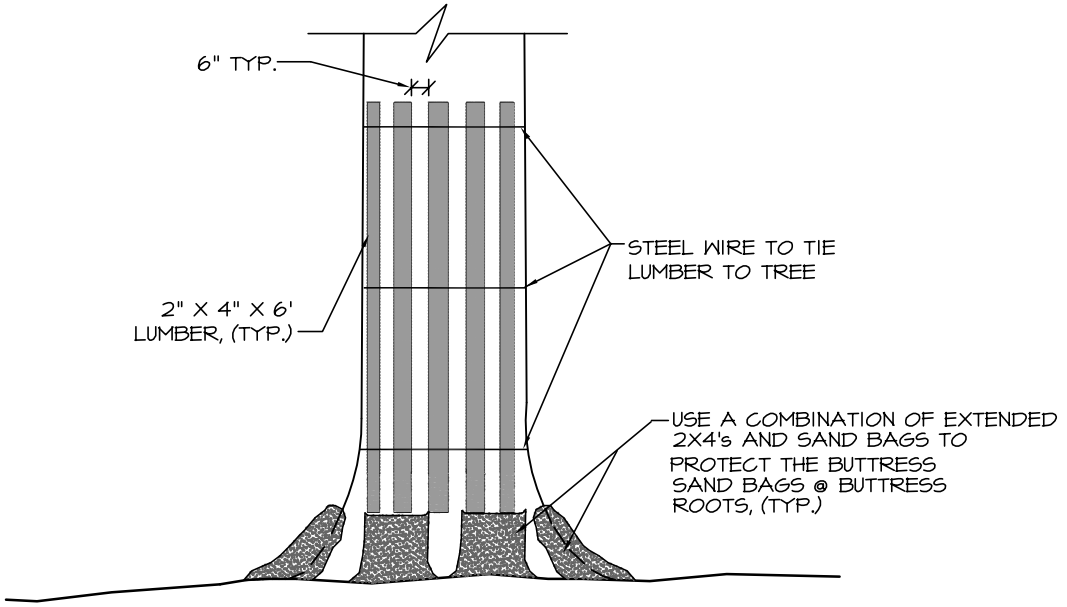
STD. NO.	REV.
40.11	

NOTES:

1. THIS TREE BUMPER DETAIL SHALL BE USED WHEN WORKING WITHIN 10' OF AN EXISTING TREE TO BE PROTECTED.
2. ALL TREES SHALL BE SAVED UNLESS NOTED OTHERWISE ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. LUMBER, WIRE, AND SANDBAGS MAY BE REUSED AT OTHER TREES.
4. THE INTENT OF THIS DETAIL IS TO PROTECT EXISTING TREES FROM DAMAGE DURING CONSTRUCTION ESPECIALLY FROM BACKHOE ARM SWING. AN ALTERNATE APPROACH MAY BE USED IF APPROVED IN WRITING BY THE ENGINEER AFTER CONSULTATION WITH THE TOWN'S DULY AUTHORIZED REPRESENTATIVE.



PLAN VIEW



ELEVATION VIEW

NOT TO SCALE

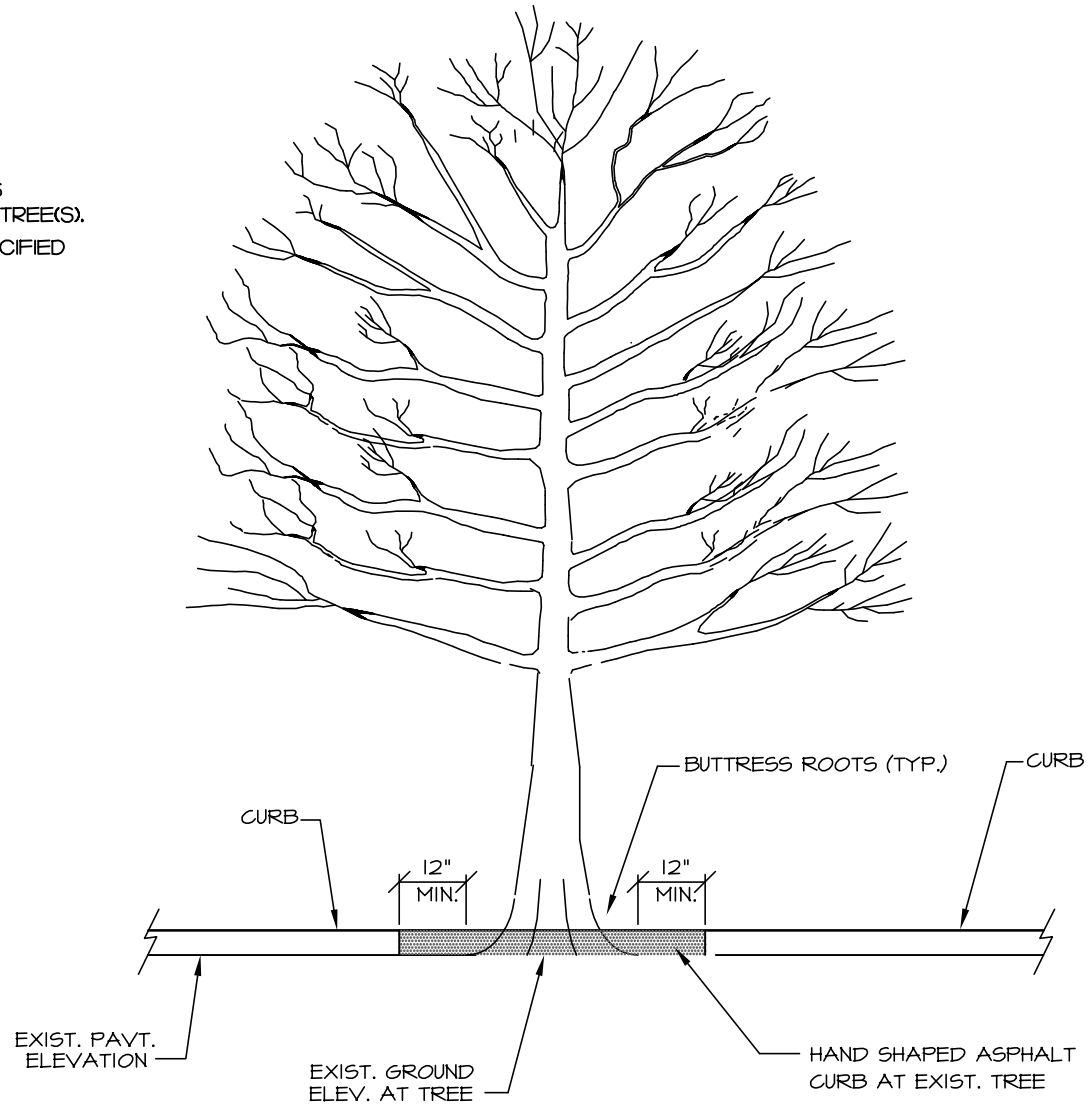
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TEMPORARY TREE PROTECTION DETAIL

STD. NO.	REV.
40.12	

NOTES:

1. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR EXISTING TREES.
2. WHERE EXISTING TREES ARE WITHIN 4' OF THE PROPOSED BACK OF CURB, THE PROPOSED CURB SHALL END A MINIMUM OF 12" FROM THE TREE'S BUTTRESS ROOTS.
3. CONTRACTOR SHALL COORDINATE WITH THE TOWN'S REPRESENTATIVE TO IDENTIFY TREES FOR WHICH THIS DETAIL APPLIES PRIOR TO CONSTRUCTION NEAR THE TREE(S).
4. NO TREES SHALL BE REMOVED UNLESS CLEARLY SPECIFIED ON THE PLANS OR IDENTIFIED BY THE ENGINEER.
5. AVOID FILL PLACEMENT NEAR TREE.
6. FOR ADDITIONAL SPECS., SEE SECTION 1000 PART 03. B AND C



NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ASPHALT CURB PLACEMENT AT EXISTING TREES

STD. NO.	REV.
40.13	

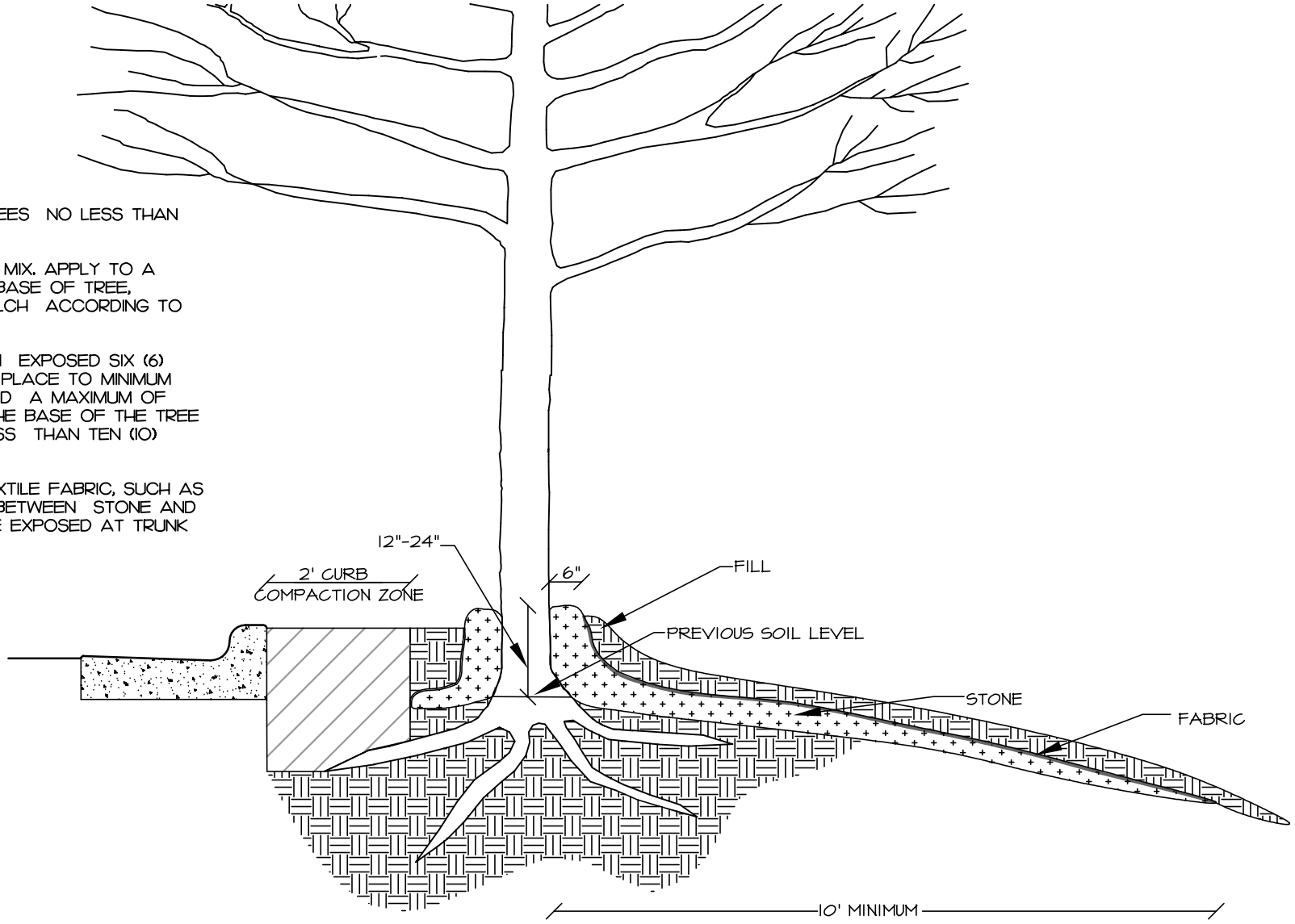
NOTES:

1. APPLICATION DESIGNED FOR TREES NO LESS THAN 12" IN DIAMETER.

2. FILL - SEE CLDSM - PLANTING MIX. APPLY TO A DEPTH OF FOUR (4) INCHES AT BASE OF TREE, TAPER TO GRADE. SEED AND MULCH ACCORDING TO CLDSM.

3. STONE - #5, WASHED. MAINTAIN EXPOSED SIX (6) INCH WIDTH AT TRUNK OF TREE. PLACE TO MINIMUM DEPTH OF TWELVE (12) INCHES AND A MAXIMUM OF TWENTY-FOUR (24) INCHES AT THE BASE OF THE TREE AND TAPER OUTWARD TO NO LESS THAN TEN (10) FEET.

4. FABRIC - NON-WOVEN GEOTEXTILE FABRIC, SUCH AS MIRAFI OR EQUIVALENT, PLACED BETWEEN STONE AND FILL. IT IS NOT TO COVER STONE EXPOSED AT TRUNK OF TREE.

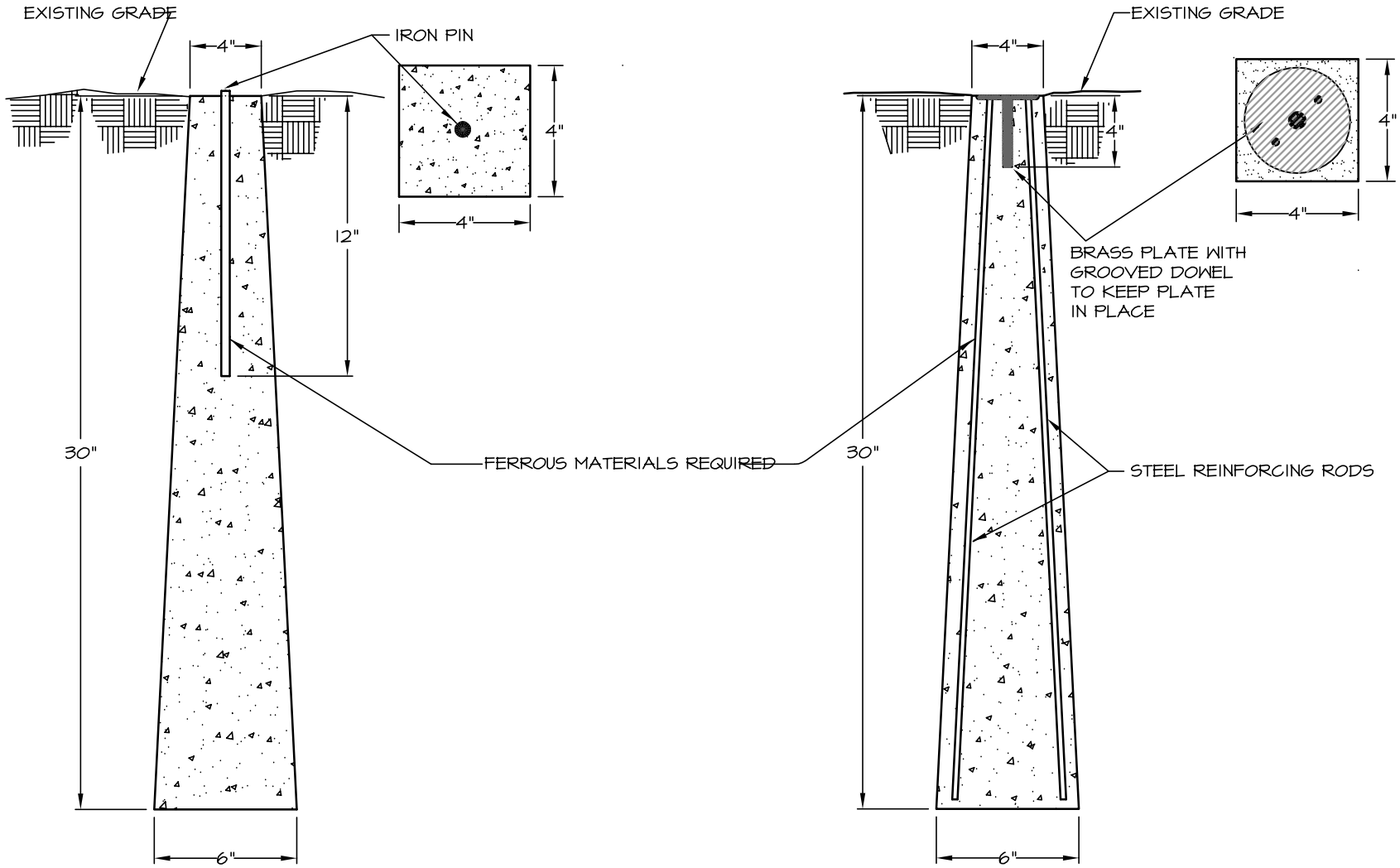


NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ROCK CHIMNEY

STD. NO.	REV.
40.14	

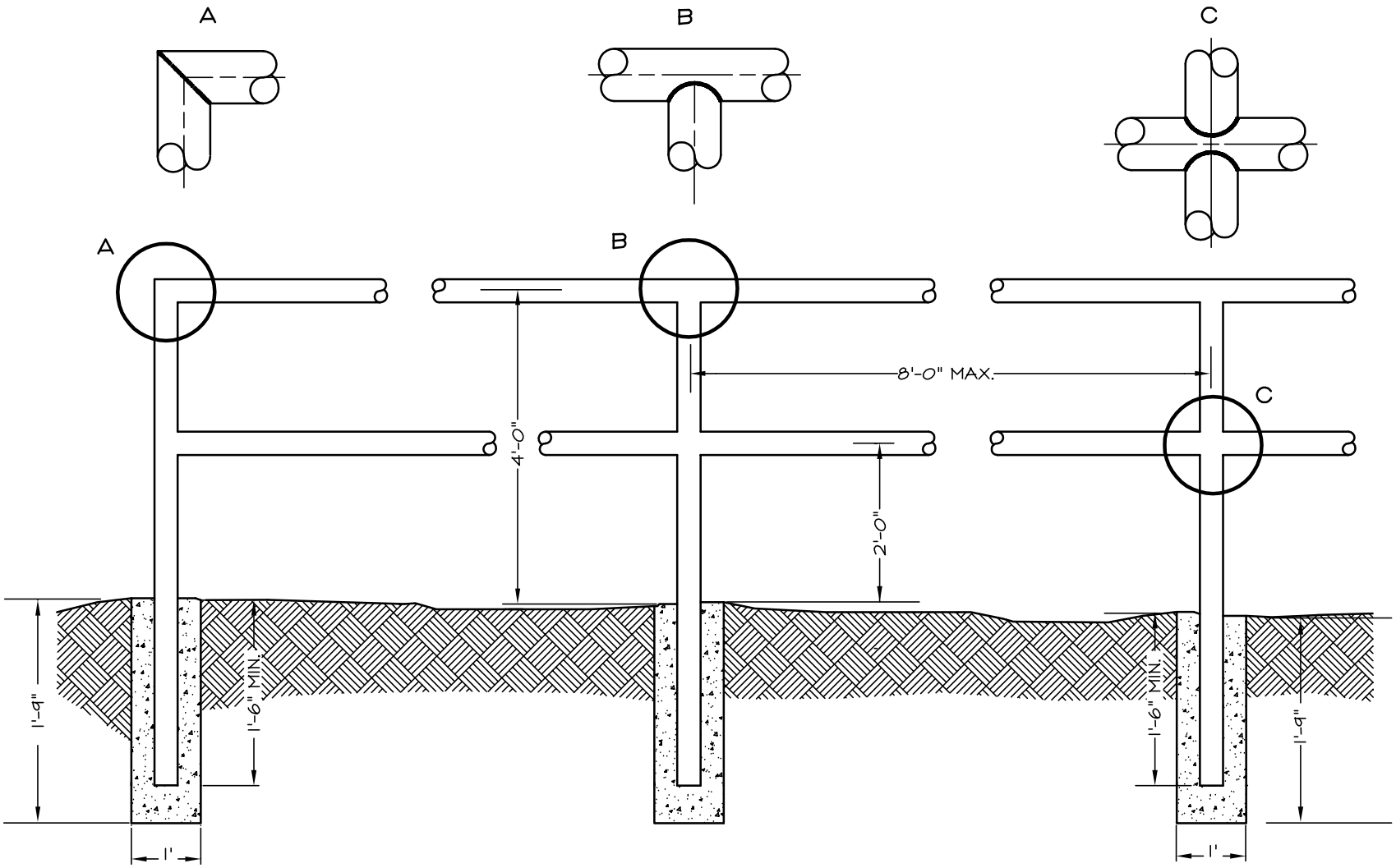


NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

TYPICAL CONCRETE CONTROL MONUMENT

STD. NO.	REV.
50.03	



GENERAL NOTES:

1. ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
2. TYPE OF PIPE TO BE USED IS 1-5/8" MAX. O.D. BLACK IRON, LOW CARBON PIPE OR GALVANIZED.
3. ALL JOINTS TO HAVE A 1/2" FILLET WELD AT ALL JOINTS.
4. AFTER INSTALLATION PAINT ASSMBLY WITH BLACK ALL WEATHER ENAMEL.
5. SEE DETAIL 50.04-B FOR WARRANTS

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SAFETY RAIL

STD. NO.	REV.
50.04A	

WARRANTS

STANDARD SAFETY RAIL (STD. #50.04A) SHALL BE INSTALLED UNDER ANY OF THE FOLLOWING CIRCUMSTANCES IN BOTH NEW CONSTRUCTION AND IN RETROFITTING OR RECONSTRUCTION OF EXISTING ROADWAYS OR SITES:

1. WHEN THE CULVERT CROSSING DETAIL (STD. #10.36A-B) APPLIES.
2. IF THERE IS A TWO FOOT OR GREATER DROPOFF WITHIN 2 FEET OF TH EDGE OF THE SIDEWALK (SEE DIAGRAM A).
3. IF THERE IS A 1-FOOT OR LARGER DROPOFF DIRECTLY ADJACENT TO THE SIDEWALK EDGE (SEE DIAGRAM B).
4. AT THE TOP OF ANY DROPOFF WITHIN THE PEDESTRIAN CLEAR ZONE OR WHERE PEDESTRIANS CAN REASONABLY BE EXPECTED IN THE VICINITY.
5. AT THE DIRECTION OF THE TOWN ENGINEER BASED ON FIELD CONDITIONS.

DEFINITIONS

DROPOFF -- A SLOPE OF 2:1 OR STEEPER. EXAMPLES INCLUDE HEADWALLS, RETAINING WALLS, AND CULVERTS.

PEDESTRIAN CLEAR ZONE -- 10 FEET OF ANY COMBINATION OF SIDEWALK, SLOPE, AND SHOULDER SLOPED AT 6:1 OR FLATTER. SIDEWALK DOES NOT NEED TO BE PRESENT.

SIDEWALK -- FOR PURPOSES OF THIS STANDARD, THE TERM "SIDEWALK" IS USED GENERICALLY AND SHALL MEAN ANY PATH OR SURFACE TO BE USED FOR BICYCLE AND/OR PEDESTRIAN TRANSPORTATION. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SIDEWALKS, BIKE PATHS, SHARED-USE PATHS, PEDESTRIAN PATHS, AND GREENWAYS.

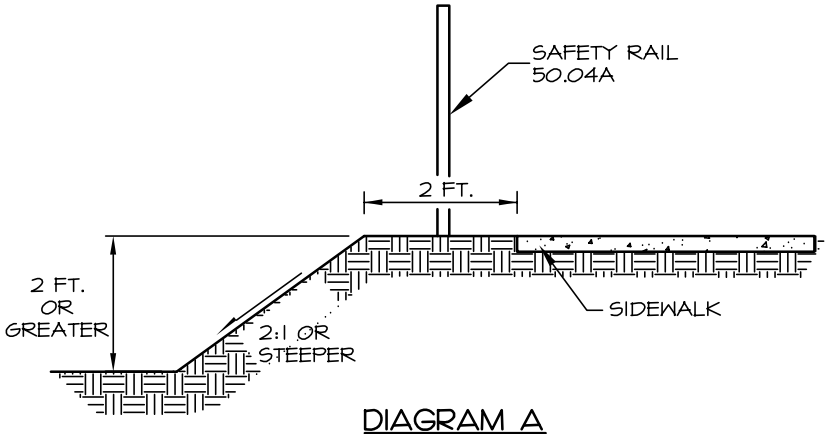


DIAGRAM A

SLOPED DROPOFF AT BACK OF SIDEWALK

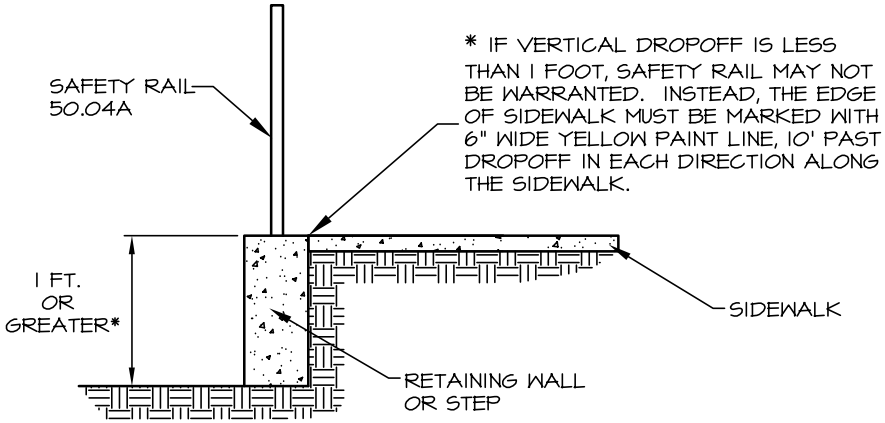


DIAGRAM B

VERTICAL DROPOFF AT BACK OF SIDEWALK

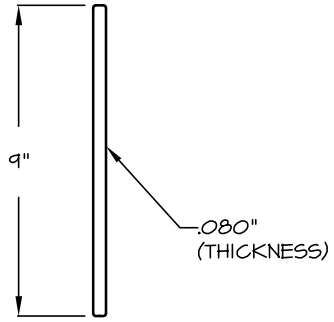
NOT TO SCALE

TOWN OF STALLINGS

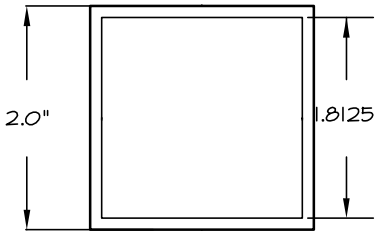
LAND DEVELOPMENT STANDARDS

SAFETY RAIL WARRANTS

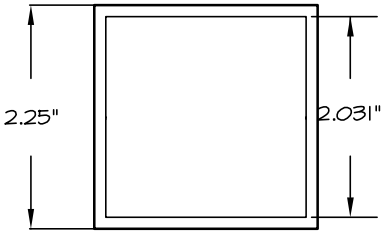
STD. NO.	REV.
50.04B	



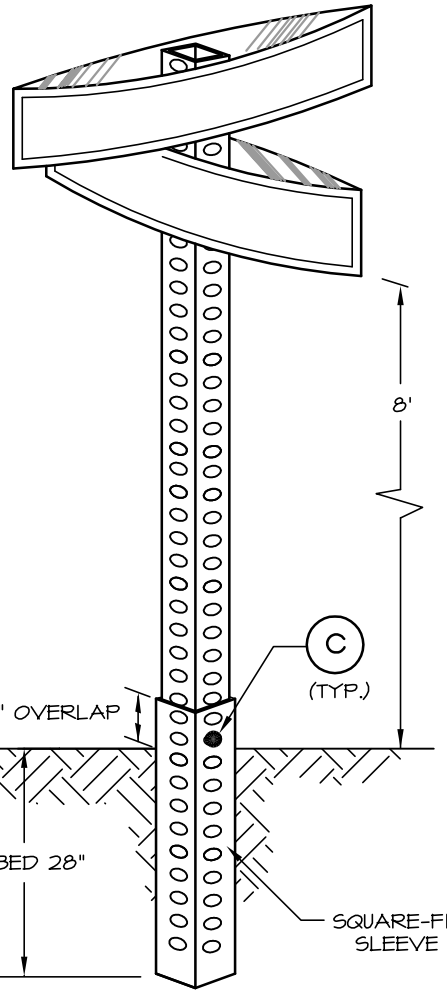
SIGN



POST
(14 GAUGE)



SQUARE-FIT SLEEVE
(12 GAUGE)



STREET NAME SIGN
POST INSTALLATION

KEY TO FASTENERS:

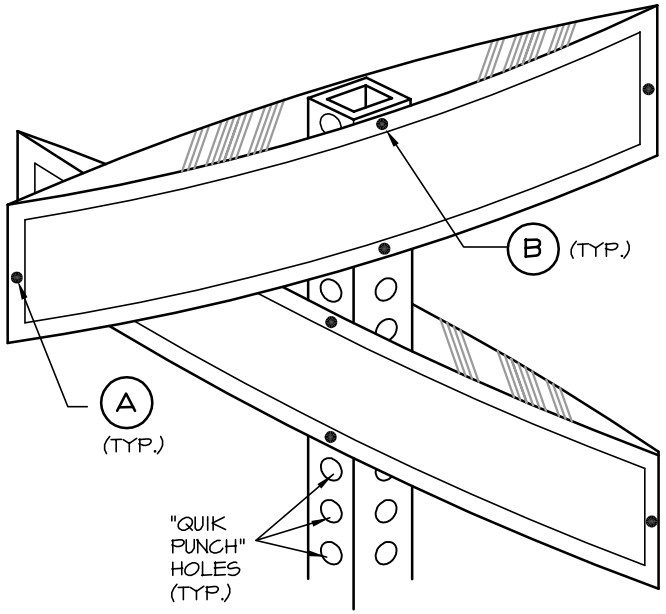
(A) #10-24 x $\frac{3}{4}$" HEX HEAD MACHINE, ZINC- DEAD END
#10-24 FLANGE NUT, ZINC- DEAD END

(B) $\frac{5}{16}$" #16 X 3" CARRIAGE BOLT, ZINC
$\frac{5}{16}$" #16 HEX NUT, STEEL

(C) $\frac{5}{16}$" #16 X 2-$\frac{3}{4}$" CORNER BOLT (BREAKAWAY), ZINC
$\frac{5}{16}$" #16 HEX NUT, STEEL

NOTES :

1. POST SHALL BE 14-GAUGE GALVANIZED STEEL, QUIK-PUNCH, $\frac{7}{16}$ " HOLES, 1" ON CENTER, ALIGNED ON ALL SIDES, AND 2" SQUARE, 10 FEET IN LENGTH.
2. THE SLEEVE SHALL BE 12-GAUGE GALVANIZED STEEL, $\frac{7}{16}$ " HOLES, 1" ON CENTER, ALIGNED ON ALL SIDES, AND 2.25" SQUARE, 30" IN LENGTH.
3. ALL STREET NAME SIGNS ARE SUBJECT TO THE APPROVAL OF THE TOWN PLANNER OR HIS DESIGNEE.



NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

STREET NAME SIGN

STD. NO.	REV.
50.05A	

NOTES

1. STREET NAME MARKERS (SNM) SHALL BE ALUMINUM, FLAT, AND HAVE DIMENSIONS AS SHOWN ON THIS DETAIL. MIMIMUM LENGTH OF 24", MAXIMUM LENGTH OF 60". THE SNM'S SHALL BE COVERED WITH WHITE HIGH INTENSITY PRISMATIC (HIP) RETRO-REFLECTIVE SHEETING (3M SERIES 3930 OR EQUIVALENT) WITH PRESSURE SENSITIVE ADHESIVE (OR EQUIVALENT TYPE IV OR HIGHER).
2. THE LETTERS SHALL BE REVERSE CUT FROM TRANSPARENT GREEN OVERLAY FILM (3M #1177 EC FILM OR EQUIVALENT MEETING FEDERAL SPECIFICATION FP-96, SECTION 178.01(A) AND ASTM D4956). THE TRANSPARENT GREEN OVERLAY FILM MUST BE PLACED ON THE SNM TO PROVIDE AN EXPOSED 0.5" BORDER OF THE UNDERLAY WHITE HIP RETRO-REFLECTIVE SHEETING.
3. THE STREET NAME SHALL BE COMPOSED OF INITIAL UPPER CASE LETTERS 6" IN HEIGHT AND CORRESPONDING LOWER CASE LETTERS 4.5" IN HEIGHT, IN FHWA "HIGHWAY B" FONT. THE STREET NAME SHALL BE LEFT-JUSTIFIED AND PLACED 0.5" FROM THE SIGN BORDER. ANY STREET NAME WITH 3 OR FEWER LETTERS SHALL BE CENTERED IN THE SIGN TEXT AREA.

   PREFIX/SUFFIX NAMES SHALL BE COMPOSED OF INITIAL UPPER CASE LETTERS 3" IN HEIGHT AND CORRESPONDING LOWER CASE LETTERS 2.25" IN HEIGHT, IN FHWA "HIGHWAY C" FONT.

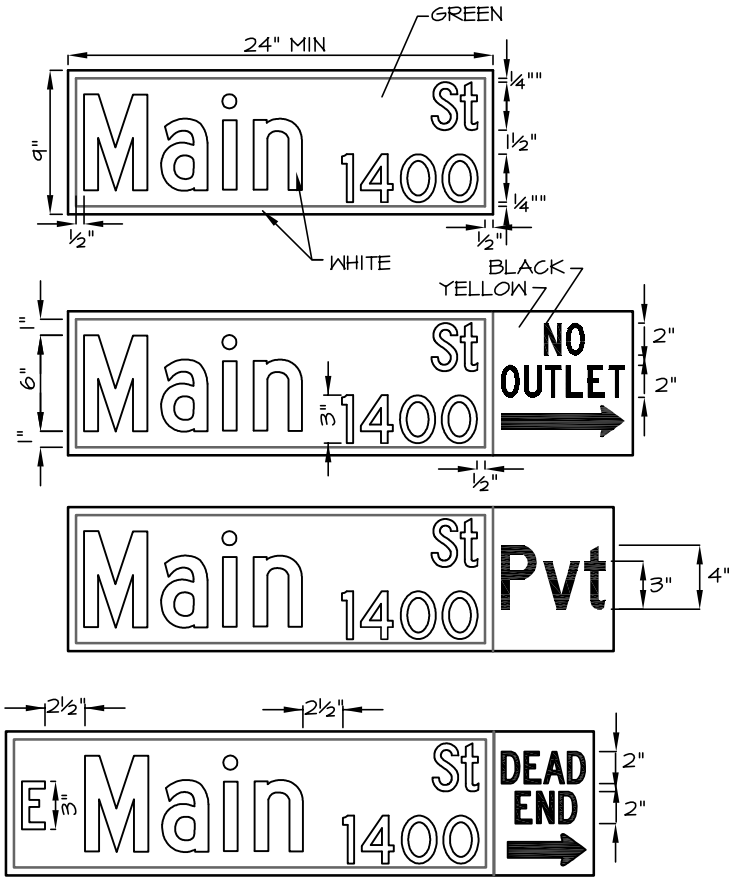
   BLOCK NUMBERS SHALL BE 3" IN HEIGHT, IN FHWA "HIGHWAY C" FONT.

   SUFFIX NAMES AND BLOCK NUMBERS SHALL BE RIGHT-JUSTIFIED AND PLACED 0.5" FROM THE RIGHT-SIDE SIGN BORDER AND 0.25" FROM THE TOP AND BOTTOM SIGN BORDERS. PREFIX LETTERS (N, S, E, AND W) SHALL BE CENTERED AND PLACED 0.5" FROM THE LEFT-SIDE SIGN BORDER WITH 2.5" SPACING TO BEGINNING OF STREET NAME.
4. SUPPLEMENTAL SNM WORDING ON YELLOW HIP RETRO-REFLECTIVE SHEETING WITH BLACK VINYL LETTERS SHALL BE PLACED ADJACENT TO THE GREEN OVERLAY FILM/BORDER TO INDICATE STREETS THAT DEAD END, HAVE NO OUTLET, ETC. OR ARE PRIVATE STREETS (PVT). THE YELLOW HIP RETRO-REFLECTIVE SHEETING MUST BE PLACED ON THE SNM TO MAINTAIN AN EXPOSED 0.5" BORDER OF THE UNDERLAY WHITE HIP RETRO-REFLECTIVE SHEETING.

   NO OUTLET WITH ARROW (RIGHT OR LEFT) - PLACED ON SNM AT ENTRANCE TO A STREET OR STREET NETWORK FROM WHICH THERE IS NO OTHER EXIT. USE UPPER CASE LETTERS 2" IN HEIGHT, IN FHWA "HIGHWAY C" FONT.

   PVT - PLACED ON SNM AT ENTRANCE TO PRIVATE STREET, USE UPPER CASE LETTER 4" IN HEIGHT AND CORRESPONDING LOWER CASE LETTERS 3" IN HEIGHT, IN FHWA "HIGHWAY C" FONT.

   DEAD END WITH ARROW (RIGHT OR LEFT) - PLACED ON SNM AT ENTRANCE TO A SINGLE STREET THAT TERMINATES IN A DEAD END OR CUL-DE-SAC. USE UPPER CASE LETTERS 2" IN HEIGHT, IN FHWA "HIGHWAY C" FONT. IF STUB STREET IS LESS THAN OR EQUAL TO 200 FEET, THEN DEAD END IS NOT NECESSARY.
5. ALL SNMs ARE SUBJECT TO THE APPROVAL OF THE TOWN PLANNER OR HIS DESIGNEE.



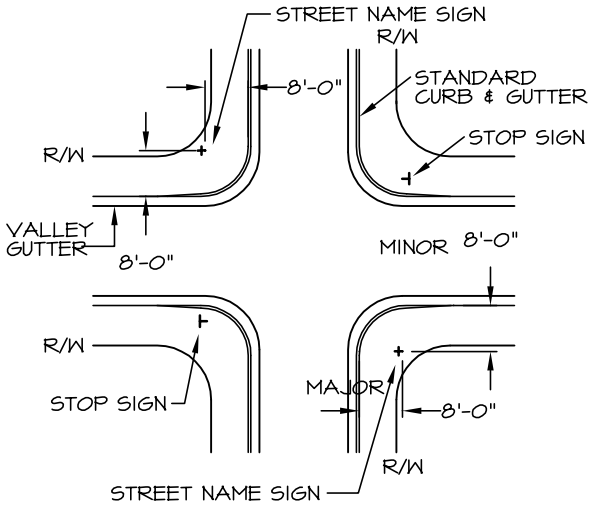
NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

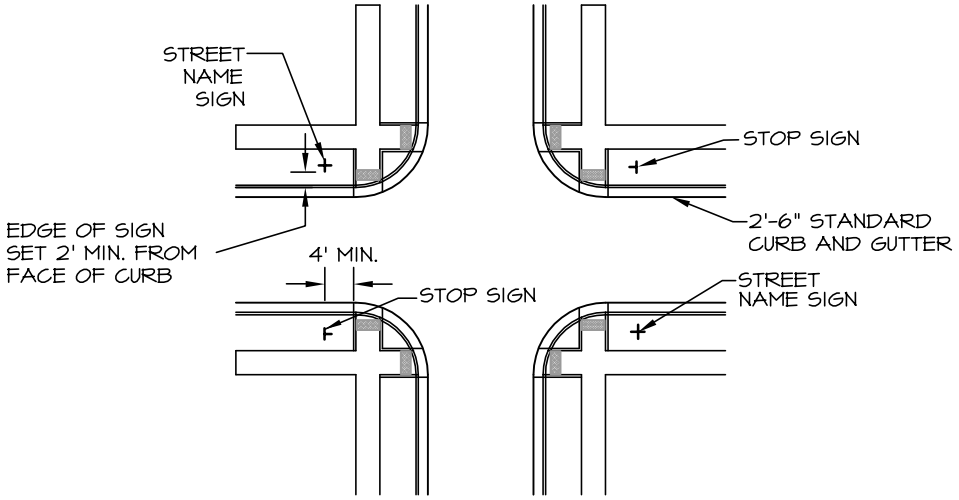
STREET NAME SIGN

STD. NO.	REV.
50.05B	

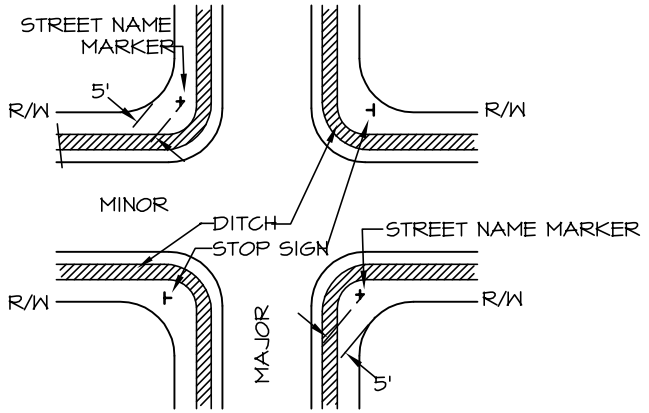
INTERSECTION with CURB and GUTTER



INTERSECTION with SIDEWALK, CURB, and GUTTER



INTERSECTION with DITCHES, and NO CURB and GUTTER



NOTES

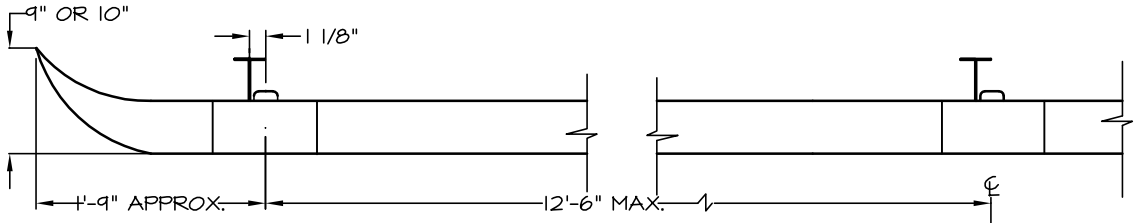
1. TWO STREET NAME MARKERS ARE REQUIRED IF THE MAJOR STREET HAS 3 OR MORE LANES.
2. ANY VARIANCE FROM THIS STANDARD MUST BE APPROVED BY THE TOWN PLANNER

NOT TO SCALE

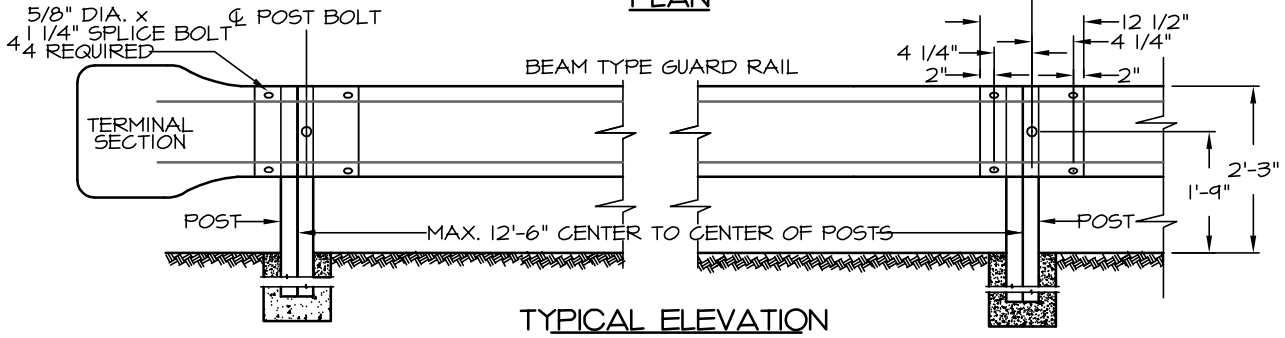
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

STREET NAME SIGN INSTALLATION LOCATIONS

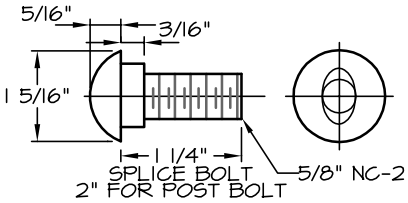
STD. NO.	REV.
50.06	



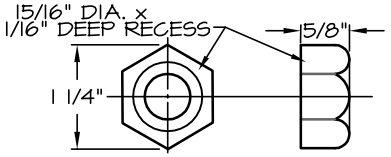
PLAN



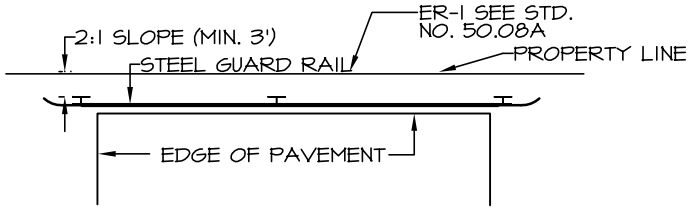
TYPICAL ELEVATION



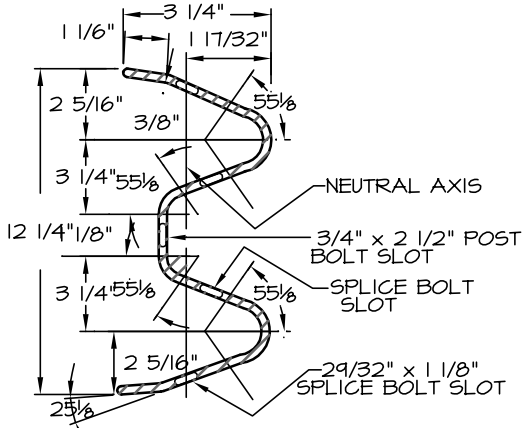
DETAIL OF BOLT



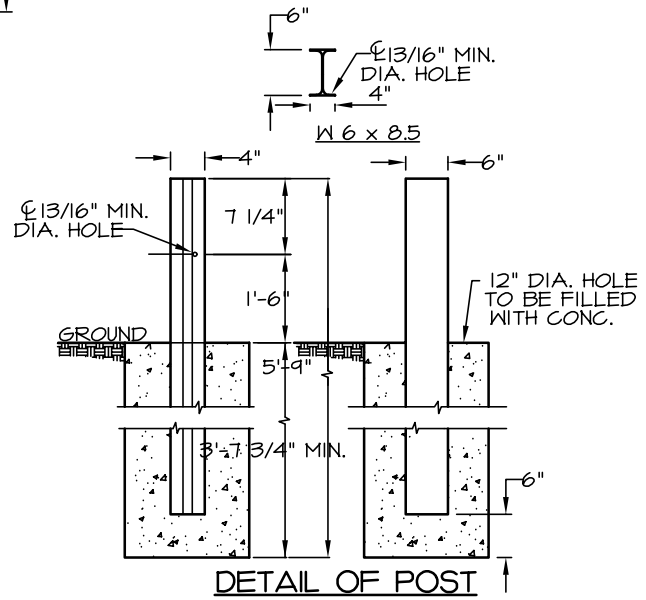
DETAIL OF NUT



DEAD-END STREET BARRICADE



SECTION THRU RAIL ELEMENT



DETAIL OF POST

NOTE

THIS DETAIL IS NOT A GUARDRAIL DETAIL. FOR ROADSIDE GUARDRAIL, SEE NCDOT STANDARD DRAWINGS 862.01-862.03

NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

DEAD END STREET BARRICADE

STD. NO.	REV.
50.07A	

GENERAL NOTES:

1. STEEL BEAM TYPE GUARD RAILS SHALL BE INSTALLED AT THE END OF ALL DEAD-END STREETS, EXCEPT CUL-DE-SAC STREETS WHICH HAVE BEEN IMPROVED WITH A PERMANENT TURN-AROUND.

2. FOR STREETS 26' IN WIDTH THE GUARD RAIL SHALL CONSIST OF TWO(2) 12'-6" SECTIONS OR ONE(1) 25' SECTION, THREE (3) STEEL POSTS, AND TWO (2) TERMINAL SECTIONS. FOR STREETS GREATER THAN 25' IN WIDTH THE GUARD RAIL SHALL SPAN THE ENTIRE WIDTH OF THE STREET.

3. GUARD RAIL SHALL CONSIST OF RAIL ELEMENTS FABRICATED TO DEVELOP CONTINUOUS BEAM STRENGTH AND INSTALLED AS SHOWN.

4. MINIMUM THICKNESS OF GUARD RAIL SHALL BE 12 GAGE U.S. STANDARD.
THE RAIL ELEMENT INCLUDING SPLICES, SHALL HAVE A MINIMUM ULTIMATE TENSILE STRENGTH OF 80,000 LBS.
GUARD RAIL PARTS FURNISHED SHALL BE INTERCHANGEABLE WITH SIMILAR PARTS REGARDLESS OF THE SOURCE OF MANUFACTURER.
THE HOLES FOR CONNECTING BOLTS SHALL BE PUNCHED OF DRILLED, BURNING WILL NOT BE PERMITTED.

5. THE GUARD, BOLTS, NUTS, STEEL POSTS. AND ALL OTHER METAL PARTS SHALL BE GALVANIZED TO CONFORM TO THE REQUIREMENTS FOR THE COATING CLASS, (2.50 OUNCES PER SQUARE FOOT) OF THE CURRENT SPECIFICATIONS FOR ZINC-COATED (GALVANIZED) IRON, AND STEEL SHEETS, COILS, AND CUT LENGTHS, IN ACCORDANCE WITH ASTM 123A.

6. IF THE AVERAGE SPELTER COATING AS DETERMINED FROM THE REQUIRED SAMPLES IS LESS THAN TWO (2) OUNCES OF SPELTER PER SQUARE FOOT, OR IF ANY ONE SPECIMEN HAS LESS THAN 1.8 ONCES OF SPELTER PER SQUARE FOOT OF DOUBLE EXPOSED SURFACE, THE LOT SAMPLED SHALL BE REJECTED, THE FINISHED SHEETS SHALL BE OF FIRST CLASS COMMERCIAL QUALITY, FREE FROM INJURIOUS DEFECTS, SUCH AS BLISTERS, FLUX, AND UNCOATED SPOTS.

7. THE GUARD RAIL SHALL BE INSPECTED TO DETERMINE THAT THE MATERIAL, DIMENSIONS, AND WORKMANSHIP ARE IN ACCORDANCE WITH THIS PLAN.

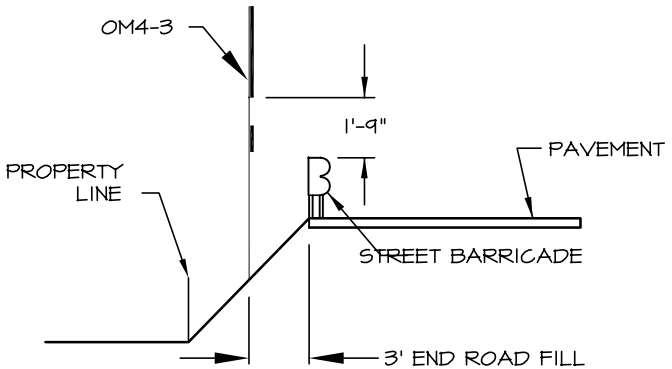
8. WHERE A DEAD-END STREET REQUIRES GUARD RAIL, END OF ROADWAY MARKER SIGNS SHALL ALSO BE REQUIRED. (SEE STD. 50.08A & 50.08B) (ER-1).

NOT TO SCALE

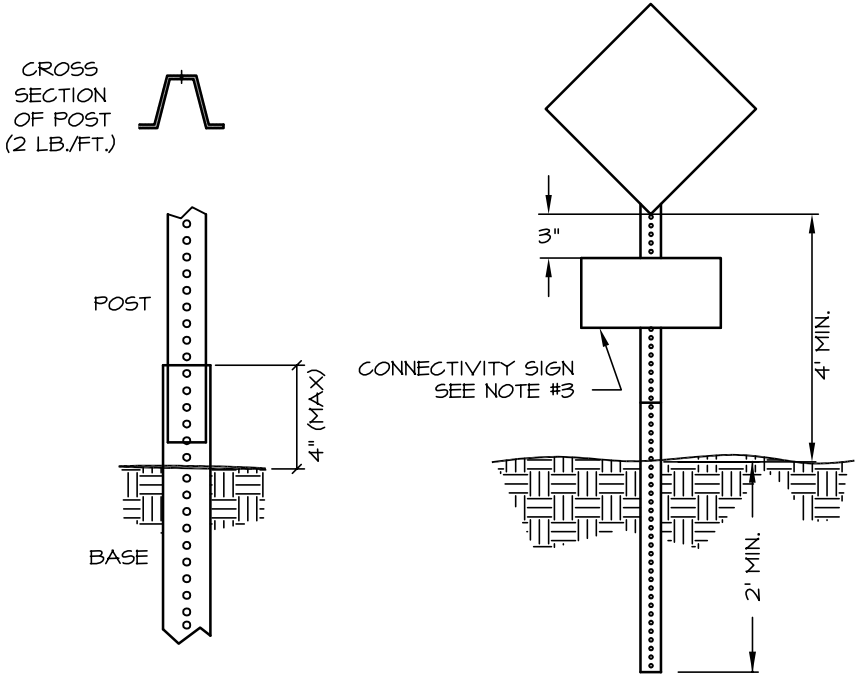
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

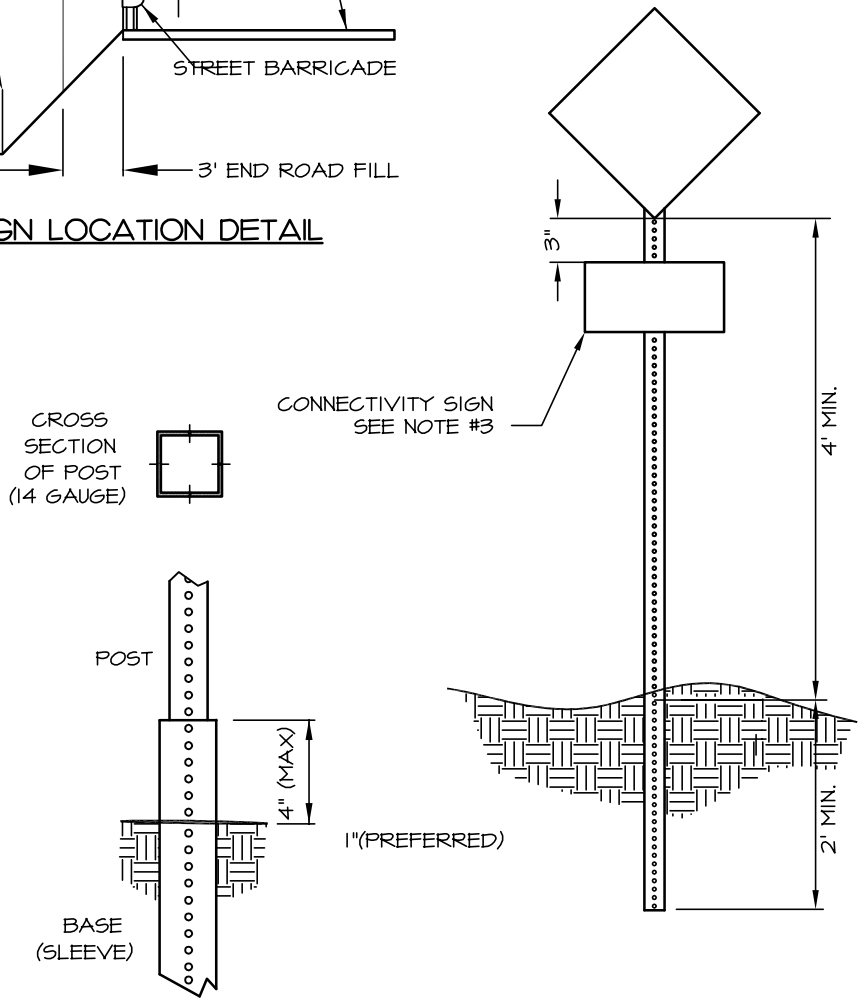
DEAD END STREET BARRICADE
GENERAL NOTES

STD. NO.	REV.
50.07B	



SIGN LOCATION DETAIL



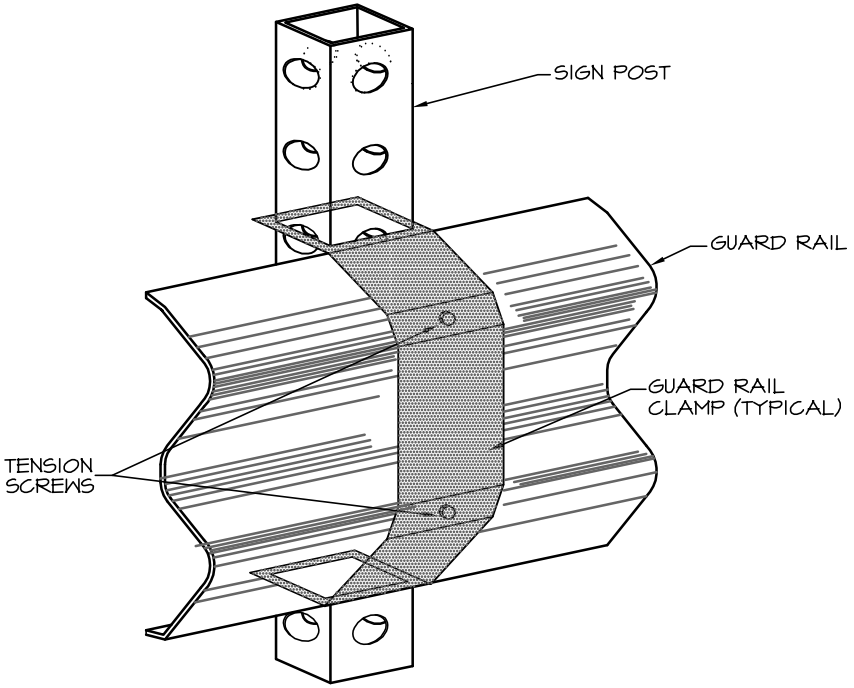


NOT TO SCALE

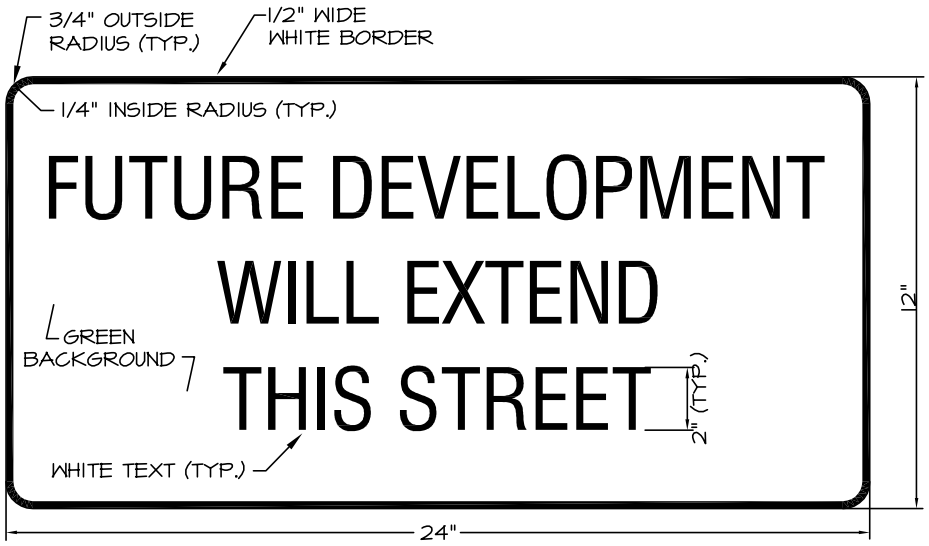
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

END OF ROADWAY MARKER

STD. NO.	REV.
50.08A	



GUARD RAIL CLAMP INSTALLATION



STREET CONNECTIVITY SIGN

1. SIGN SHALL MEET OR EXCEED MUTCD STANDARDS FOR RETROREFLECTIVITY
2. SIGN MATERIAL SHALL BE 0.080" THICK ALUMINUM
3. ALL LETTERS SHALL BE SERIES B-2000 FROM THE 2004 STANDARD HIGHWAY SIGNS MANUAL (AND ANY REVISION THERETO) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

NOTES:

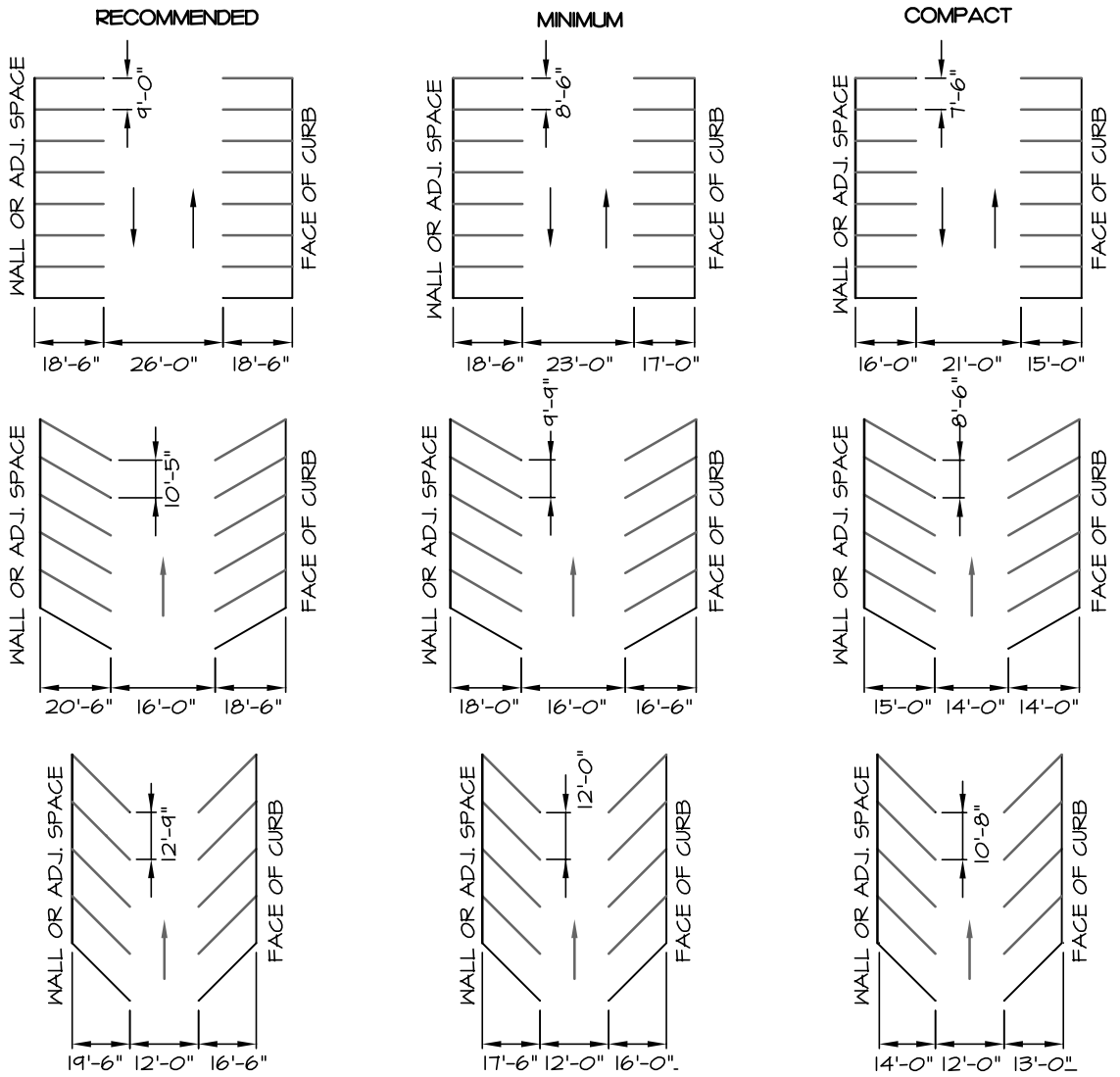
1. WHEN A DEAD-END OR STUBBED STREET REQUIRES A GUARDRAIL SECTION, END-OF-ROADWAY MARKER SIGNS (OM4-3, 24"x24", SOLID RED) SHALL BE PROVIDED.
2. SIGNS ARE TO BE PLACED BEHIND THE BARRICADE (SEE DETAILS 50.07A-B), EVENLY SPACED WITH ONE SIGN PLACED AT THE CENTERLINE LOCATION AND ADDITIONAL SIGNS AT 6' O.C. (MINIMUM OF 3 SIGNS, MAXIMUM OF 5 SIGNS).
3. WHEN BARRICADE IS USED ON A STREET STUB, THE SIGN AT THE CENTERLINE SHALL BE SUPPLEMENTED WITH A STREET CONNECTIVITY SIGN.
4. ALL SIGNS/MARKERS SHALL MEET OR EXCEED MUTCD STANDARDS FOR RETROREFLECTIVITY.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

END OF ROADWAY MARKER

STD. NO.	REV.
50.08B	



NOTES:

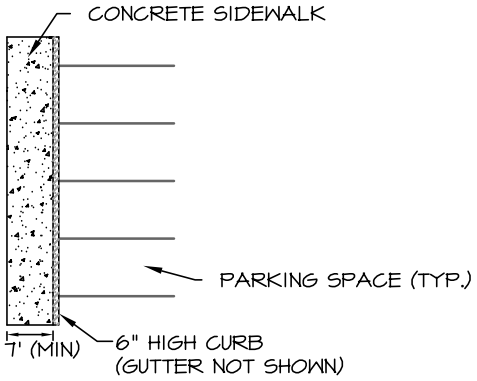
1. FOR ACCESSIBLE PARKING STANDARDS/SIGNAGE SEE STDS. 50.10A, B, AND C.
2. PAVEMENT MARKINGS SHALL BE 4" WHITE PAINT.
3. ALTERNATIVE PARKING ANGLES, AISLE WIDTHS, AND OPERATION (TWO-WAY ANGLED PARKING OR REVERSE-ANGLE PARKING) WILL BE CONSIDERED BY TOWN ENGINEER ON A CASE-BY-CASE BASIS.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

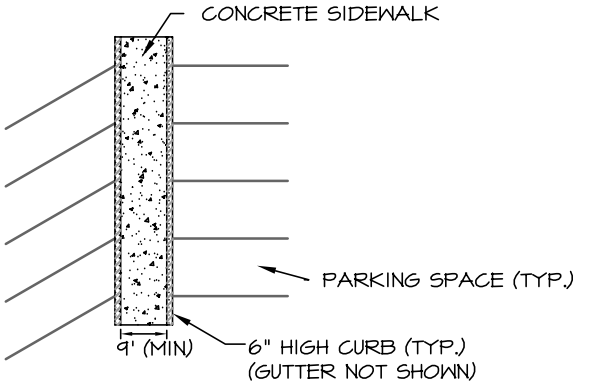
PARKING STANDARDS

STD. NO.	REV.
50.09A	



PARKING ON ONE SIDE OF A SIDEWALK

SIDEWALK ADJACENT TO HEAD-IN OR BACK-IN PARKING SHALL BE AT LEAST 7 FEET WIDE.

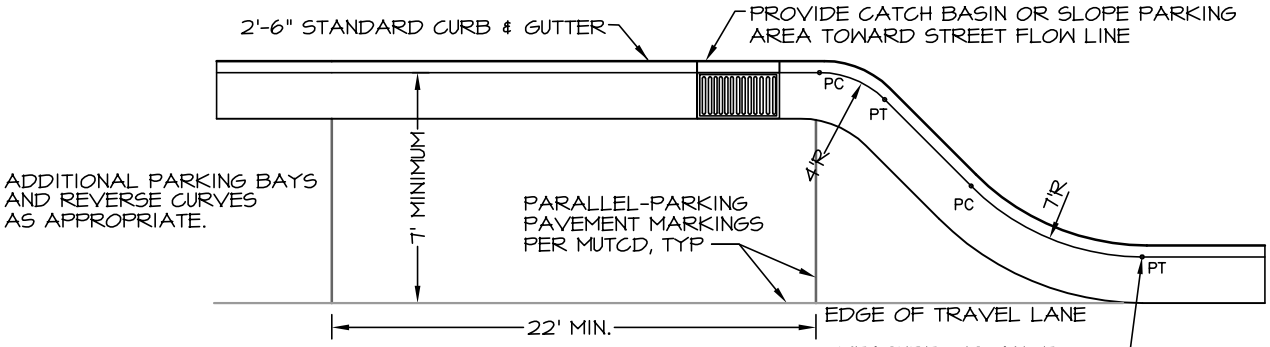


PARKING ON BOTH SIDES OF A SIDEWALK

SIDEWALK BETWEEN TWO ROWS OF HEAD-IN OR BACK-IN PARKING SHALL BE AT LEAST 9 FEET WIDE.

NOTES:

1. REVERSE CURVES NOT NECESSARY IF ADEQUATE DRAINAGE CAN BE PROVIDED THAT WILL ENSURE THAT SEDIMENT, WATER, DEBRIS, ETC., DOES NOT COLLECT IN 90-DEGREE CORNERS.
2. PARALLEL ACCESSIBLE SPACES AND LOADING ZONES TO BE REVIEWED ON A CASE-BY-CASE BASIS.
3. FOR PARKING BAYS THAT ARE 8 FEET IN WIDTH OR GREATER, THE PAVEMENT MARKINGS SHALL BE SET AT ONE (1) FOOT LESS THAN THE STALL WIDTH.
4. GREATER SEPARATION FROM INTERVENING STREETS THAN THE DISTANCES PROVIDED BELOW MAY BE REQUIRED AT THE TOWN ENGINEER'S DISCRETION.
5. POSITIVE DRAINAGE SHALL BE PROVIDED EITHER BY INSTALLATION OF APPROPRIATE DRAINAGE STRUCTURES OR SLOPE PARKING AREA TO STREET FLOW LINE. SLOPING PARKING AREA TO STREET FLOW LINE ONLY PERMITTED IF ROAD GRADE IS GREATER THAN 2%.
6. IF A BIKE LANE IS REQUIRED ADJACENT TO PARALLEL PARKING, THE MINIMUM WIDTH OF BIKE LANE IS 6'.



MINIMUM DISTANCE TO NEXT INTERVENING STREET

PARALLEL PARKING BAY LOCATED ON	DRIVEWAY	LOCAL/ COLLECTOR	TH'FARE
LOCAL/COLLECTOR	20'	20'	20'
THOROUGHFARE	20'	20'	50'

NOTES:

1. A 2-FOOT-WIDE PLANTING STRIP LOCATED AT THE BACK OF CURB CAN BE USED IN LIEU OF 2 FEET OF SIDEWALK WIDTH.
2. PARKING AT ANY ANGLE OTHER THAN PARALLEL SHALL BE SUBJECT TO THIS STANDARD.
3. IF MONOLITHIC CURB & SIDEWALK IS USED, ADD 6" TO ALL DIMENSIONS (1' IF PARKING ON BOTH SIDES).
4. WHEELSTOPS SHALL ONLY BE USED IN LIEU OF 2 FEET OF SIDEWALK WITH THE APPROVAL OF THE TOWN AND WHEN EXISTING CONDITIONS PREVENT CONSTRUCTION OF A 7-FOOT/9-FOOT SIDEWALK. WHEELSTOPS SHALL BE 6" HIGH, MADE OUT OF 3600-PSI REINFORCED CONCRETE, AND ANCHORED WITH #5 OR GREATER REBAR (2' MINIMUM LENGTH). REBAR HOLES SHALL BE GROUTED UPON INSTALLATION. WHEELSTOPS SHALL BE PLACED AT 2 FEET FROM THE EDGE OF SIDEWALK OR OBSTRUCTION.

PARALLEL PARKING STANDARDS

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

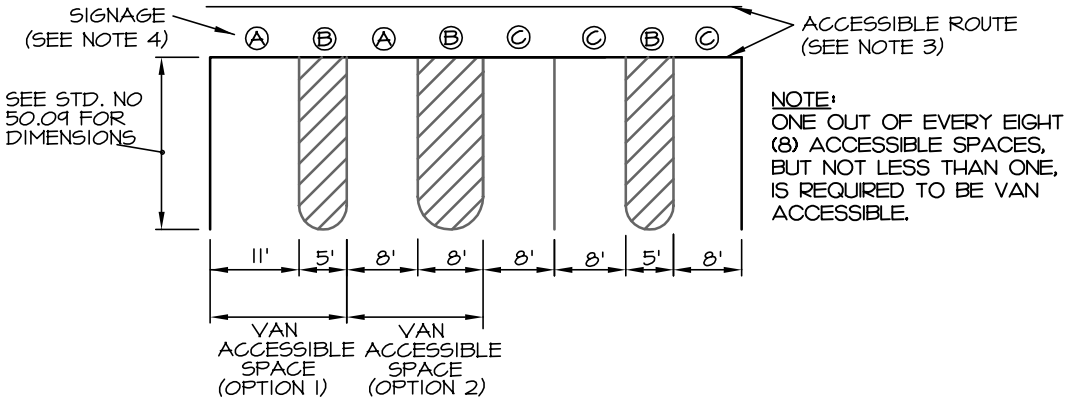
PARKING STANDARDS, CONT.

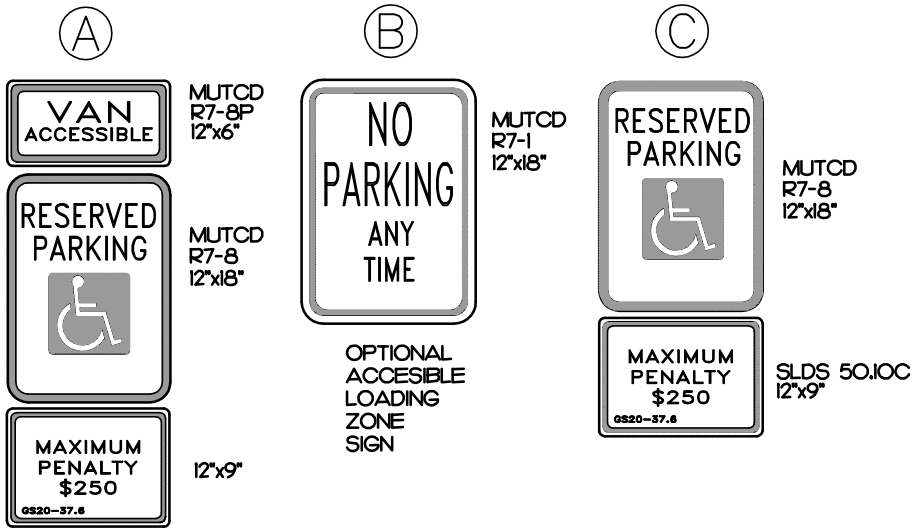
STD. NO.	REV.
50.09B	

ACCESSIBLE PARKING REQUIREMENTS

TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26 TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	1
301 TO 400	8	1
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 8 ACCESSIBLE SPACES
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 8 ACCESSIBLE SPACES
REF.: SECTION 208 OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN		

PARKING SPACE PAVEMENT MARKINGS





NOTES:

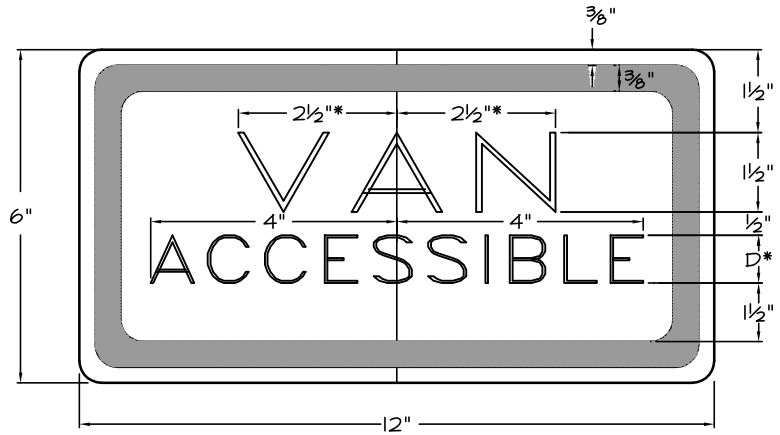
1. ALL 12"x18" ACCESSIBLE SIGNS (R7-8 & R7-1) SHALL BE MOUNTED AT 7 FEET FROM GRADE TO BOTTOM EDGE OF SIGN FACE (MUTCD). MOUNTING HEIGHT CAN BE REDUCED TO 5 FEET IF PLACED IN AN AREA BETWEEN SIDEWALK AND BUILDING FACE IN WHICH PEDESTRIANS ARE NOT EXPECTED TO USE.
2. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENT.
3. IF ACCESSIBLE ROUTE IS A RAISED SIDEWALK AREA, THEN RAMPS ARE REQUIRED AT LOADING ZONE AREA.
4. SIGNAGE MUST NOT OBSTRUCT ACCESSIBLE ROUTE OR RAMPS.

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE PARKING AND SIGNAGE STANDARDS

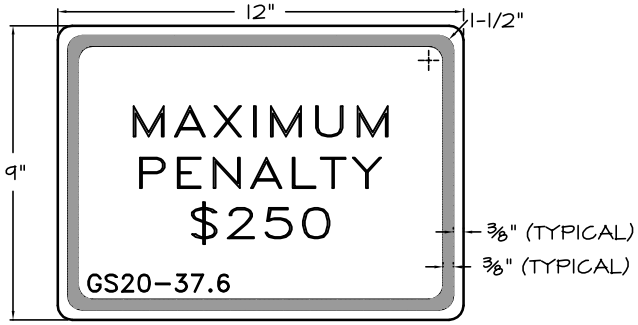
STD. NO.	REV.
50.10A	



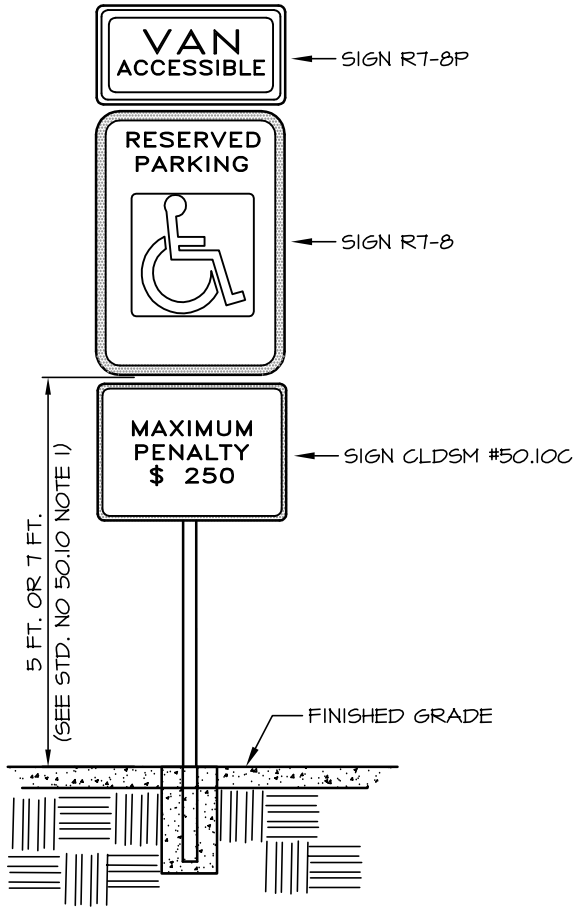
LEGEND AND BORDER - GREEN
BACKGROUND - WHITE

INCREASE SPACING 50% D-FHWA (FEDERAL HIGHWAY ADMINISTRATION/USDOT) SERIES D LETTERS

SUPPLEMENTAL VAN ACCESSIBLE SIGN (R7-8P)



LEGEND AND BORDER - GREEN
BACKGROUND - WHITE



SIGN APPROVED FOR USE UNDER GENERAL STATUTE 20-37.6

THIS PENALTY SIGN IS REQUIRED TO ACCOMPANY ALL R7-8 PARKING SIGNS ERECTED AFTER DECEMBER 31,1990

NOTE:

SUPPLEMENTAL VAN ACCESSIBLE SIGN (R7-8P) USED IF THERE IS ONLY ONE REQUIRED ACCESSIBLE PARKING SPACE (MUST BE VAN ACCESSIBLE) AND AT EACH ADDITIONAL REQUIRED VAN ACCESSIBLE SPACE. (SEE STD. NO. 50.10)

NOT TO SCALE

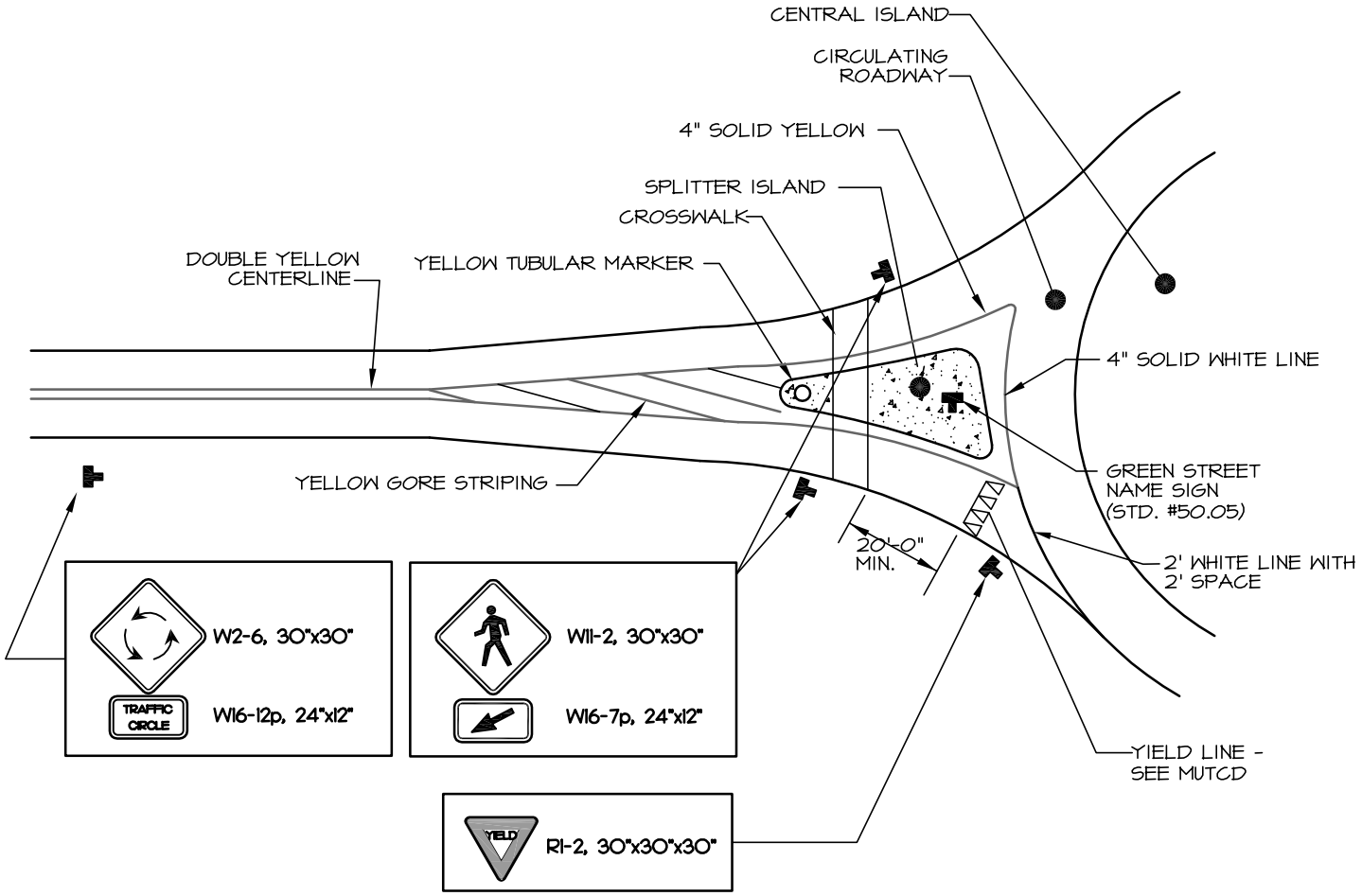
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

ACCESSIBLE PARKING SUPPLEMENTAL SIGNAGE

STD. NO.	REV.
50.10B	

NOTES:

1. PAVEMENT MARKINGS TO BE PER LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. SIGNS TO BE LOCATED/SPACED PER MUTCD REQUIREMENTS.
3. "CIRCULAR INTERSECTION" AND "TRAFFIC CIRCLE" SUBPLATE SIGNS, AND YELLOW TUBULAR MARKERS, ARE REQUIRED ON THOROUGHFARES. CDOT WILL DETERMINE IF ONE OR MORE OF THESE ARE NECESSARY ON LOCAL OR COLLECTOR STREETS.
4. "PEDESTRIAN CROSSING" AND ARROW SUBPLATE SIGNS ARE REQUIRED WHEREVER THERE IS A MARKED CROSSWALK OR ON A THOROUGHFARE.
5. "YIELD" SIGNS ARE ALWAYS REQUIRED.
6. PAVEMENT MARKINGS, SPLITTER ISLAND DESIGNS, CROSSWALK, ETC., ARE SHOWN FOR CONTEXT ONLY. REFER TO THE MUTCD AND/OR THE FEDERAL HIGHWAY ADMINSITRATION'S MANUAL ROUNDABOUTS: AN INFORMATIONAL GUIDE FOR MORE DETAIL OR DESIGN INFORMATION.
7. ADDITIONAL SIGNS MAY BE NEEDED ON A CASE-BY-CASE BASIS, TO BE EVALUATED BY TOWN ENGINEER.
8. ALL PAVEMENT MARKING SHALL BE THERMOPLASTIC.

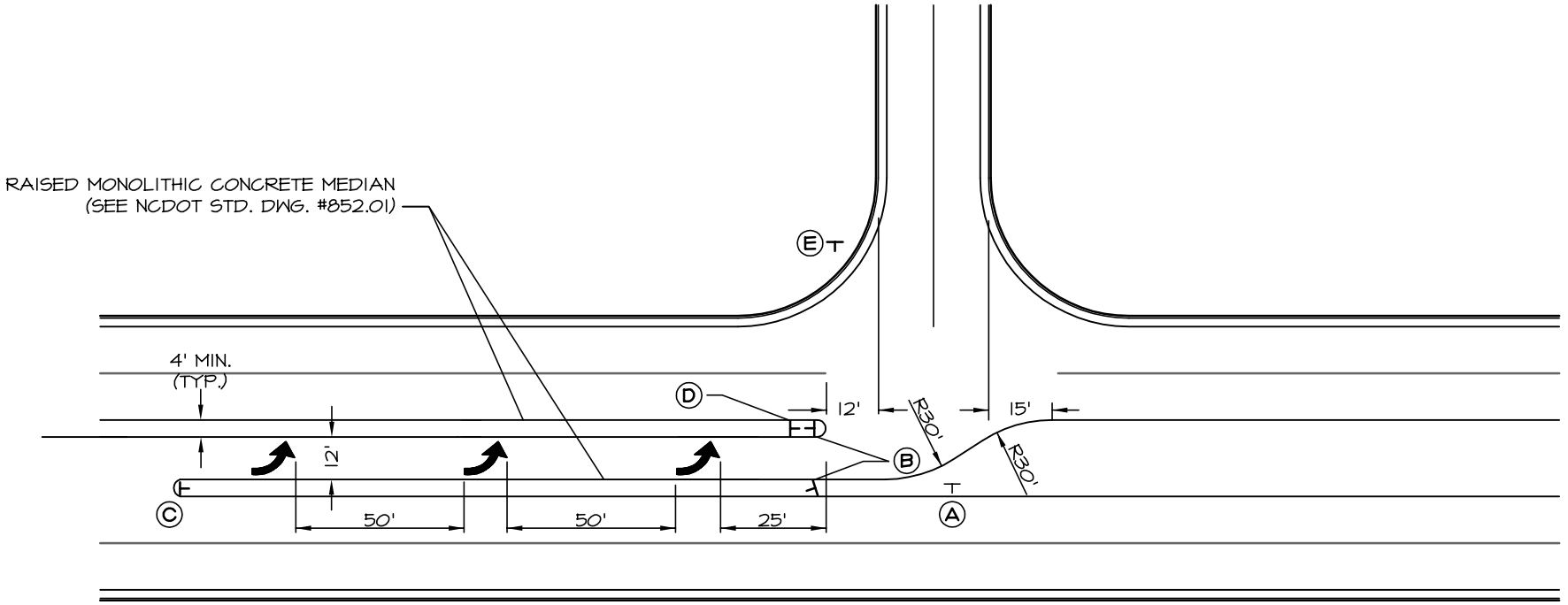


NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SIGNAGE AND PAVEMENT MARKINGS AT ROUNDABOUTS

STD. NO.	REV.
50.11	



NOTES:

1. ADDITIONAL PAVEMENT MARKINGS (EDGE LINES, GORES, ETC.) ARE NOT SHOWN BUT ARE REQUIREDBY THE TOWN ENGINEER.
2. FOR DIVIDED SIDE STREETS, MEASURE THE 12 FOOT DIMENSION FROM THE FACE OF MEDIAN INSTEAD OF FACE OF CURB ON APPROACHING LANE.
3. ALL SIGNS SHALL BE MUTCD STANDARD SIGNS.

SIGN LEGEND

- (A) ONE WAY (R6-2R, 18"x24")
- (B) DO NOT ENTER (R5-1, 30"x30")
- (C) DOUBLE-DOWN ARROW (W12-1, 30"x30")
- (D) NO U-TURN (R3-4, 24"x24")*
- (E) STOP (R1-1, 30"x30")

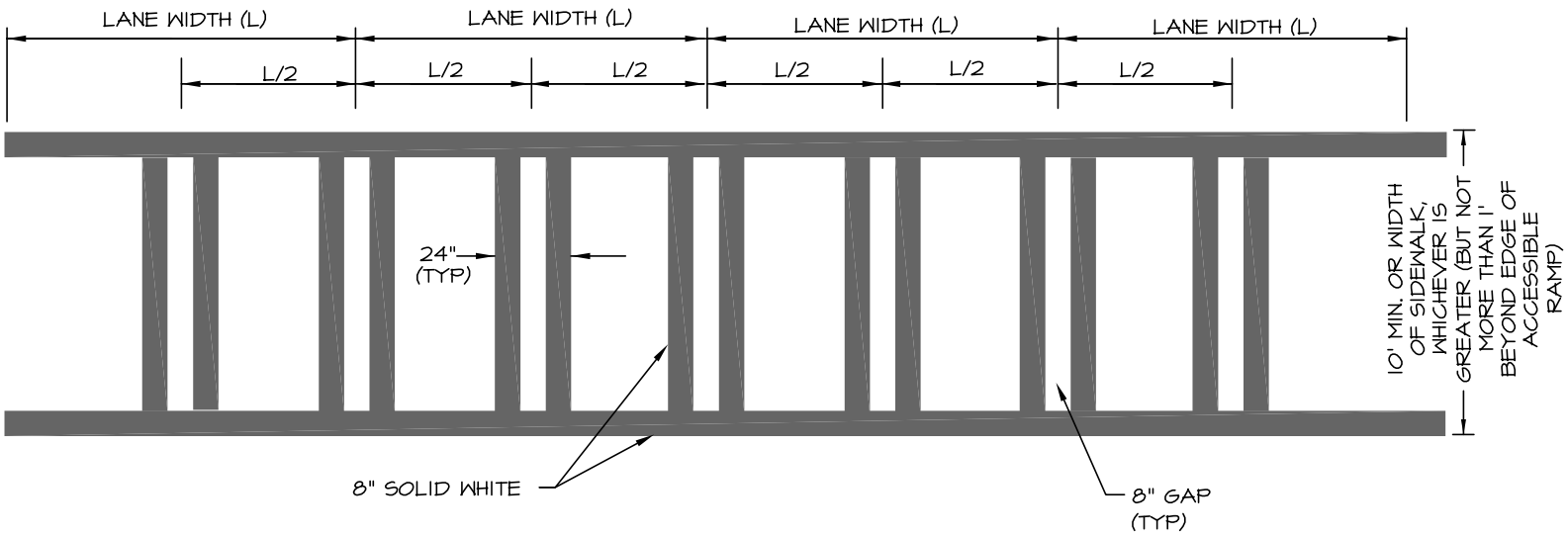
* IF NECESSARY

NOT TO SCALE

TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

DIRECTIONAL CROSSOVER WITH RAISED MEDIANS

STD. NO.	REV.
50.13	



NOTES

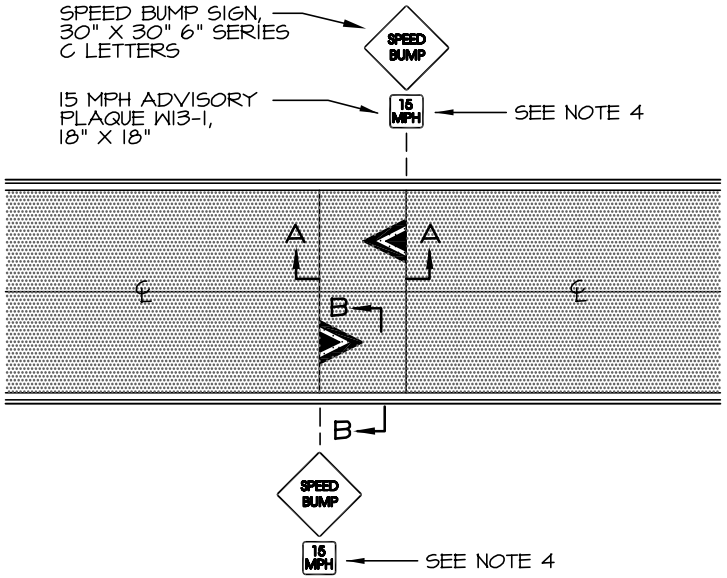
1. PER MUTCD STANDARDS, WHEN CROSSWALK LINES ARE USED THEY SHALL CONSIST OF SOLID WHITE LINES THAT MARK THE CROSSWALK. THEY SHALL BE NOT LESS THAN 150 MM (6 IN) NOR GREATER THAN 600 MM (24 IN) IN WIDTH.
2. IF TRANSVERSE LINES ARE USED TO MARK A CROSSWALK, THE GAP BETWEEN THE LINES SHOULD NOT BE LESS THAN 1.8 M (6 FT). IF DIAGONAL OR LONGITUDINAL LINES ARE USED WITHOUT TRANSVERSE LINES TO MARK A CROSSWALK, THE CROSSWALK SHOULD NOT BE LESS THAN 1.8 M (6 FT) WIDE.
3. IF USED, THE DIAGONAL OR LONGITUDINAL LINES SHOULD BE 300 TO 600 MM (12 TO 24 IN) WIDE AND SPACED 300 TO 1500 MM (12 TO 60 IN) APART. THE MARKING DESIGN SHOULD AVOID THE WHEEL PATHS, AND THE SPACING SHOULD NOT EXCEED 2.5 TIMES THE LINE WIDTH.

NOT TO SCALE

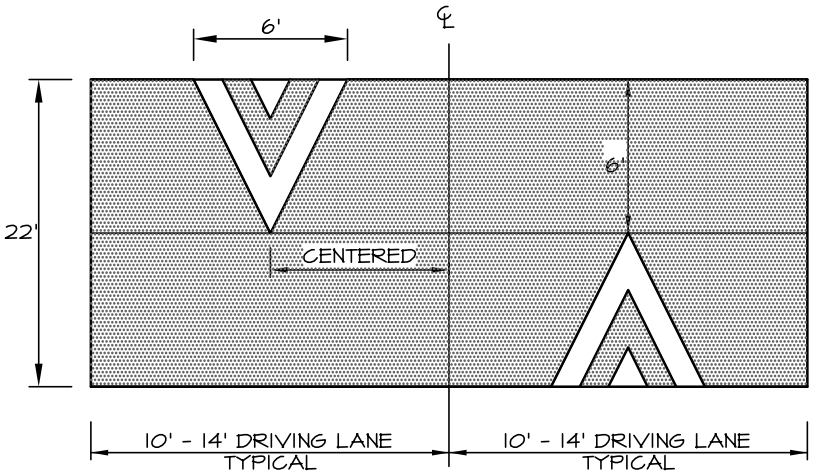
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

PIANO-STYLE CROSSWALK

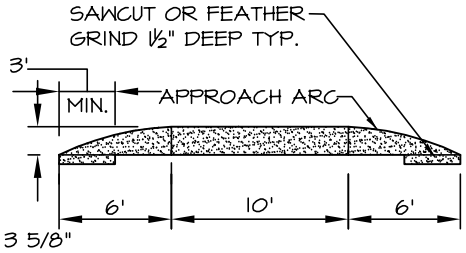
STD. NO.	REV.
50.14	



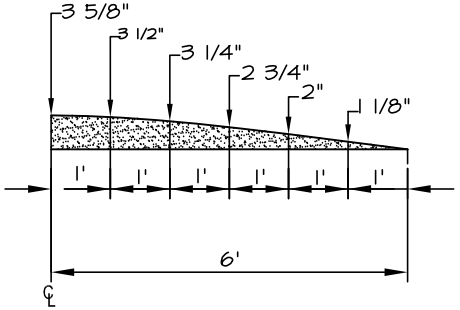
SPEED HUMP MARKING AND SIGNING



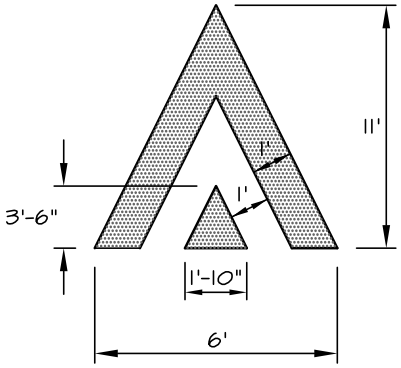
MARKING DETAIL



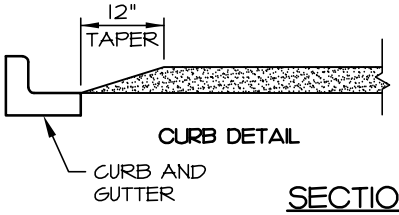
SECTION A-A

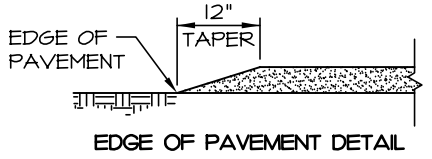


APPROACH ARC DETAIL



CHEVRON DETAIL





SECTION B-B

NOTES:

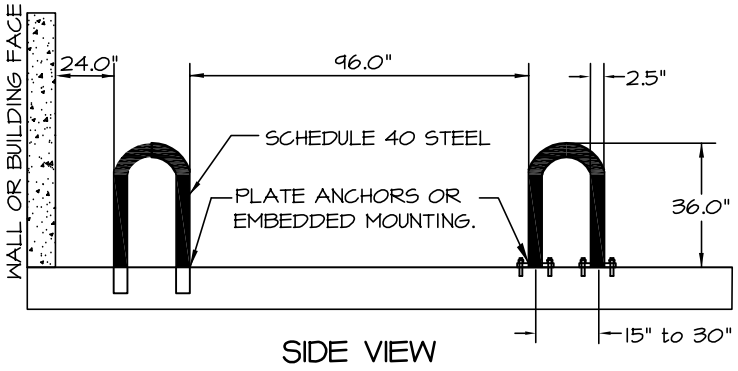
1. SAWCUT OR FEATHER GRIND TO KEY IN SPEED HUMP. SEE SECTION A-A.
2. SIGN LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
3. SPEED HUMP CHEVRON MARKING SHALL BE THERMOPLASTIC, HEAT FUSED PREFORMED, 90 MIL., OR EQUAL APPROVED BY THE ENGINEER.
4. FOR A SERIES OF SPEED HUMPS, USE THE ADVISORY SPEED PLAQUE AT ONLY THE FIRST SPEED HUMP IN EACH DIRECTION OF TRAVEL.
5. FOR A SERIES OF SPEED HUMPS, INSTALL W17-1 SIGN ONLY AT THE ENTRANCES OF A SUBDIVISION.
6. USE PAVEMENT TYPE S9.5B

NOT TO SCALE

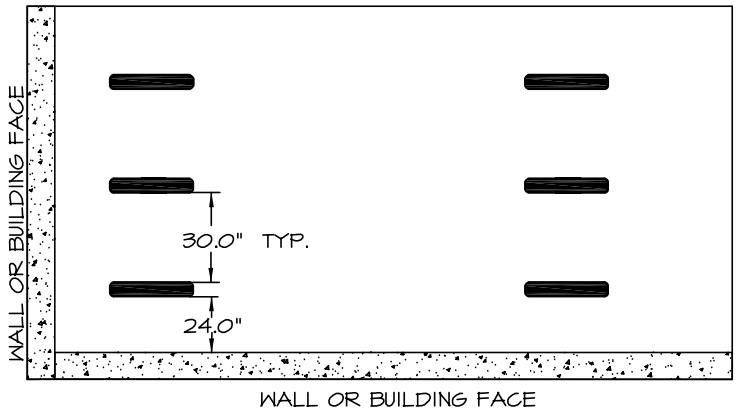
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

SPEED HUMP DETAIL

STD. NO.	REV.
50.15	



SIDE VIEW



PLAN VIEW

NOTES:

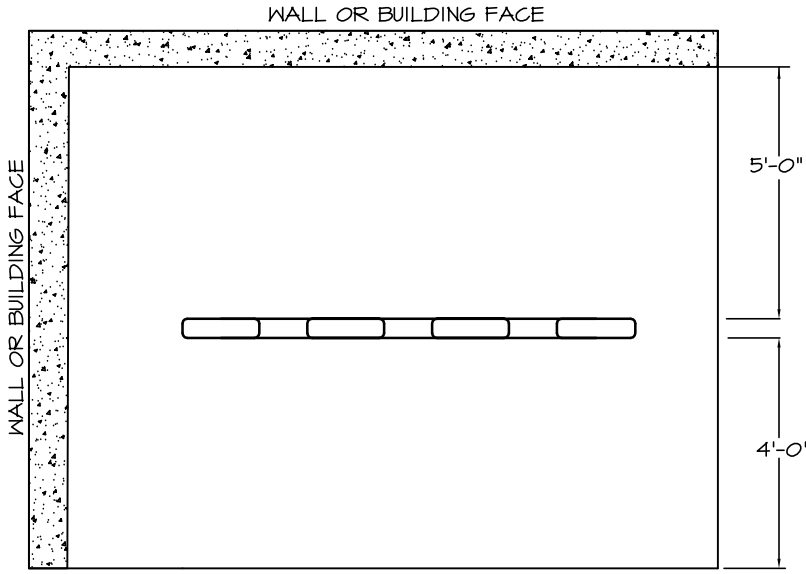
1. BIKE RACKS SHOULD BE INSTALLED AS PER MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
2. ALTERNATIVE BIKE RACKS OR LOCKERS MAY BE USED BUT ARE SUBJECT TO APPROVAL BY THE TOWN ENGINEER
3. ALL DIMENSIONS SHOWN ARE MINIMUM.

NOT TO SCALE

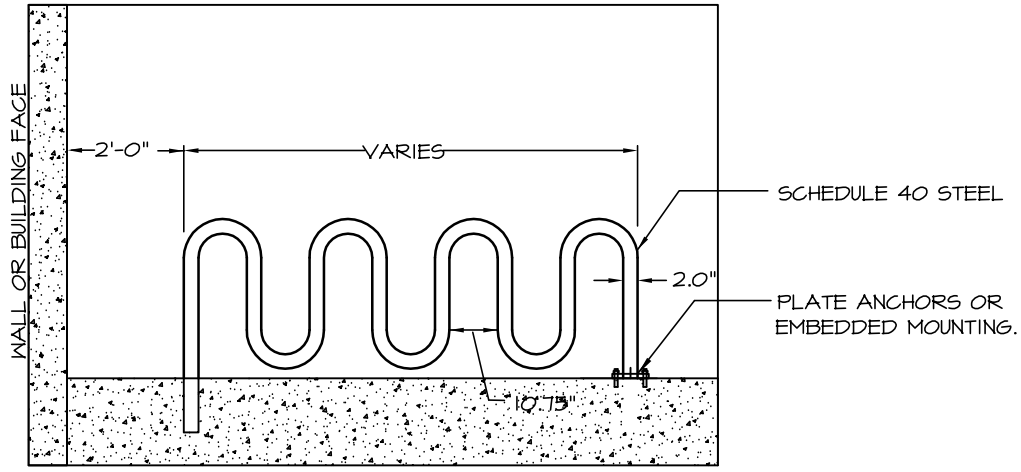
TOWN OF STALLINGS
LAND DEVELOPMENT STANDARDS

INVERTED "U" RACK FOR BICYCLE PARKING

STD. NO.	REV.
50.20	



PLAN VIEW



SIDE VIEW

PROCEDURES.

NOTES:

1. BIKE RACKS SHOULD BE INSTALLED AS PER MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
2. ALTERNATIVE BIKE RACKS OR LOCKERS MAY BE USED BUT ARE SUBJECT TO APPROVAL BY THE TOWN ENGINEER.
3. ALL DIMENSIONS SHOWN ARE MINIMUM.

NOT TO SCALE

TOWN OF STALLINGS

LAND DEVELOPMENT STANDARDS

WAVE RACK FOR BICYCLE PARKING

STD. NO.	REV.
50.21	